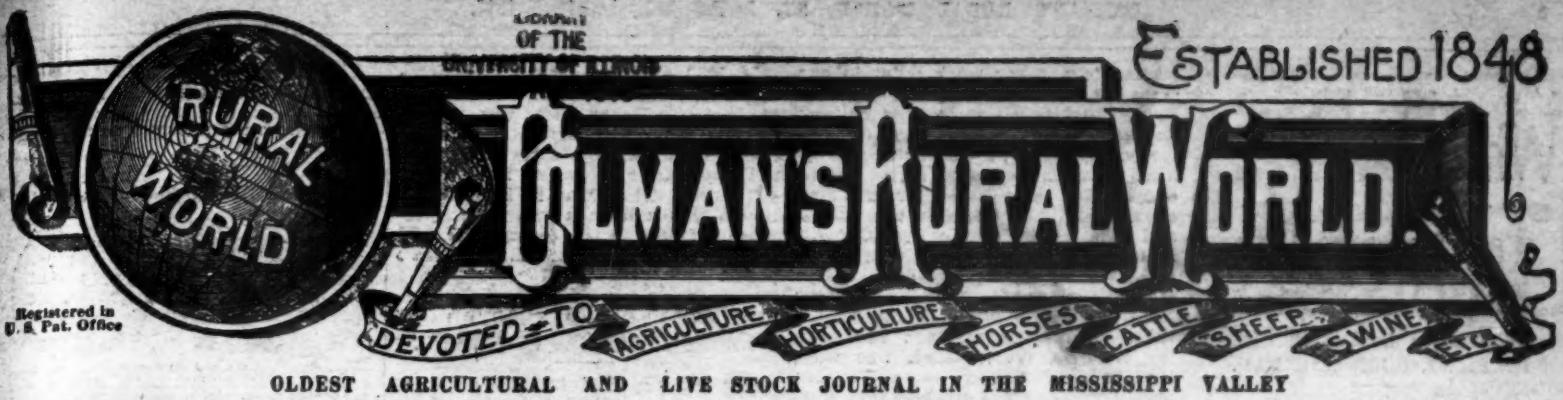


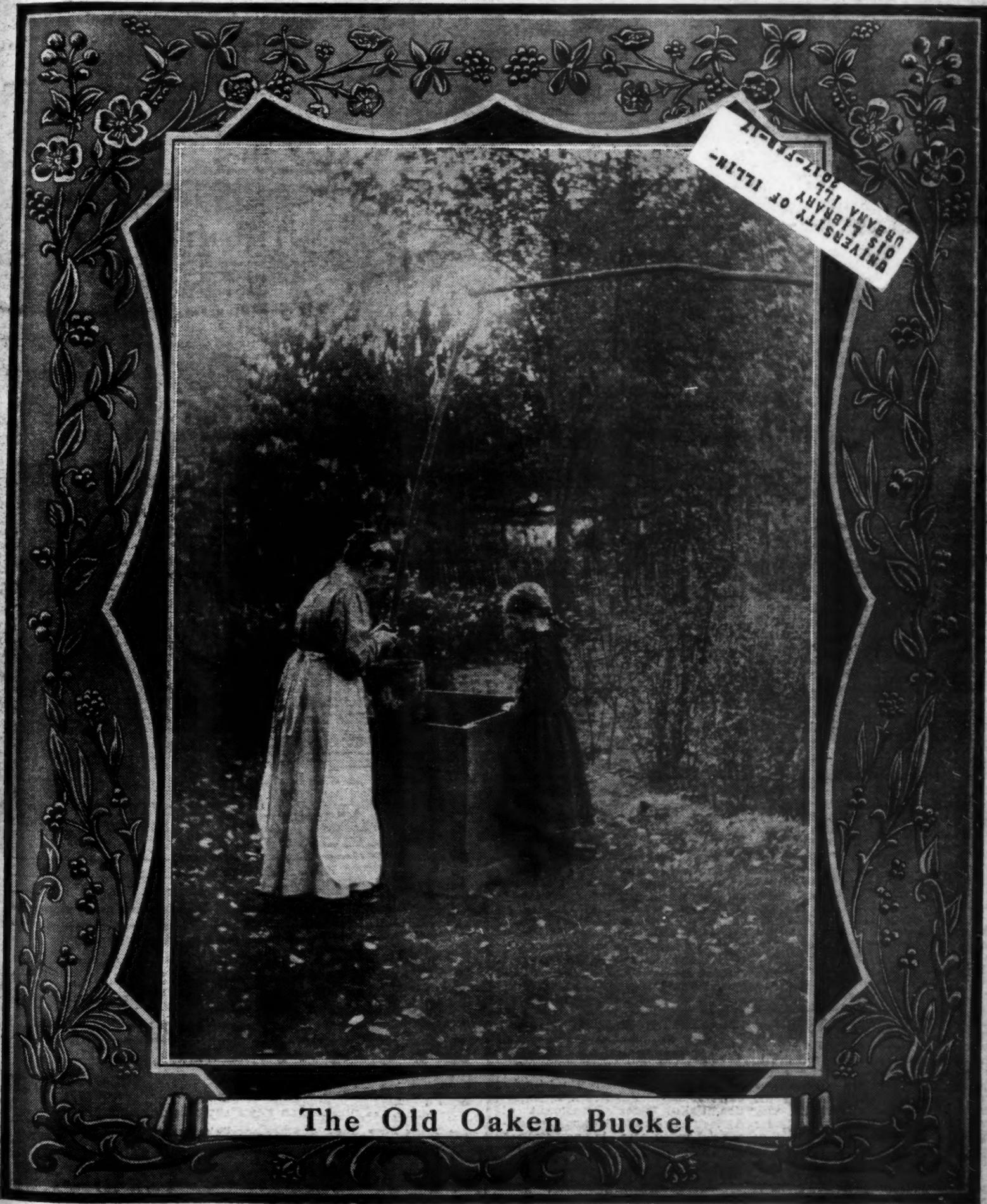
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Sixty-Eighth Year.

ST. LOUIS, MO., APRIL 8, 1915.

Volume LXVIII. No. 14.



# WHAT OUR READERS THINK & DO

## AN OPINION OF FARMERS' ORGANIZATIONS, GOOD AND BAD.

Editor, *Rural World*:—Judging by what has gone before, there must come once in awhile an era of low prices for nearly all commodities, especially for those produced on the farm. Just why this is so I am unable to say. But it is not to say why, or to say how it may be prevented; but, rather, if I can, to tell in what way this condition may be met without any great shock to our trade's nerve system. I am going to give a list of the causes contributing thereto.

First of all, we have allowed too much uncertainty to get into the system under which we are producing, especially that part of our farm's crop production that contributes the money with which to operate it. For, under the present plan under which we operate it, the farm is made to bear much unnecessary strain, in that all that is needed to run it is generally bought, and nearly always under abnormally high rates.

Take our farmers here in the cotton belt, for an example. They are actually doubling and trebling their load of debt by buying a lot of necessary things that they could produce just as well, or better, on the very farms that they are raising the cotton on. Furthermore, much of what they are buying could not only be produced cheaper by them, but it would lessen the cost of cotton production by enriching the cotton lands if they would make it themselves on their own lands.

A one-money-crop plan of farming is bad and unprofitable enough, and when we go to stretching this to the point of making this crop pay for the food for itself, the producer and his family, as well as whatever livestock he may think needed in his business, then we are not only inviting financial ruin to come our way, but we are rushing on to meet it.

Just now we are being admonished to "co-operate," and while I consider this, if it is gone into in the right spirit, a great help in the curing of our financial ills, I am of the opinion that we need first to get something to co-operate on. Two neighbors helping each other haul cotton to the gin or the market, is co-operation of a kind, but the real, simon-pure article of co-operation is something more than this. For co-operation to be effective must have behind it (1) the true "co-operative spirit," (2) a willingness to give "value received," rather than make the patron "hands up," and (3) a group of men (and women) with a fair amount of business judgment in their make-up.

The first named requisite, or the lack of it, has been the cause of the failure of more co-operative enterprises, probably, than any other one thing. In studying this subject of co-operation, why not look at it as a partnership in which every member is to do all that he may that will contribute to the good of the firm? For too long have we looked on co-operation as being a means of using the other fellow's shoulder to boost "my" interests. Or, when this idea is not the predominating one, the majority have with them one just as bad: The aim to hold up the consumer and make him "come across with the cash," whether-or-no. Where the true co-operative spirit is present, it is neither a game of "all the bones are mine" between the members, or "we have organized to hold up the consuming public." In short, they have organized to get collectively for the entire member-body what they couldn't get for themselves by individual effort.

Besides the three essentials to co-operative success enumerated above (two of which have been passed on, while the third will receive attention a little farther on) I want to call at-

tention to another weak point in our farm organizations, one and all. This is, first, a disposition to treat or look on such organizations as only a temporary affair; whereas, if they have as much gumption as they want one to give them credit for, the man or woman who watches the course and culmination of the Farmers' Alliance would see clearly that to be effective any farmers' organization must be planned along permanent lines and not have for its objective a transient attainment, such as downing the jute trust, which was what the Farmers' Alliance set out to do; and while it accomplished this purpose, for the time being, and then went out of business, who will say that this organization's work was all that was desired and all that it might have accomplished if it had been planned and organized and supported to the right end?

Somehow or other our farmers' organizations of the past (and present) have failed to "get connected up," or they have done, or haven't done, something that will allow of that little "spark" getting in its work effectively so that the "co-operative spirit" is fully and permanently suffused throughout the farmer-body of the organization.

I have followed closely the workings to some extent of these organizations themselves, but, more especially, of the farmer's mind, and noted in what regard he now holds such. And the average man nowadays considers any such plan as the aim of some one (or group) to get—either an office with a good salary attached, or to get "his" by getting the particular commodity, or a goodly part of it, in hand, and sell out to the speculators. This is partly due to the scandalous disclosures made at different times and about different ones connected with some of the past's farmers' organizations. But by far the greater contributing cause to this belief was the failure of these organizations to accomplish their aim in one season, as the majority of their members had the idea they would. Many will doubt this statement, because not having been in a position to see for themselves, and not being able to bring themselves to believe that a collection of men (though one man might have such an idea) could even think for a moment that conditions could be so transformed, mushroom-like, in so short a time. And, I doubt not, there are some who, though knowing this to be true, will, for reasons of their own, deny that such is true.

Now for the "third essential" that should receive "the first consideration" at the hands of all farmers, whether organized or not. I will begin by asking this question: Does even the man of ordinary intelligence believe that the farmers can produce any kind of a market crop on credit, and then force their own price merely by organizing? I don't believe there is any man with such a belief. "I am from Missouri," and must be shown, when it comes to boosting prices of farm produce that is made under a mortgage, pool those mortgages though you may.

In other words, our farmers' organizations must be built up on broader lines than they have been heretofore, and take, among other things, cognizance of the first principle of success—each member being independent of outsiders. And this is only to be had by such member putting his farm on a self-sustaining basis, which further is to be accomplished by a better system of cropping, etc.; and there is no reason why this can't be done, even here in the cotton belt, because it can; not by all in one season, maybe, but by all in time if they will make up their minds to this end.—R. M. McDaniel, Georgia.

## TEXAS PEACH CROP DAMAGED.

Telegraphic advices received by the office of markets and rural organization, United States Department of Agriculture, March 31, from the commercial peach area in northeastern Texas, estimate a damage of 35 per cent to 80 per cent in the southern and central portions of this area, embracing Jacksonville, Athens, Marshall and Lindale. The northern points appear to have suffered but little.

In 1913 shipments from these stations ranged from five to 150 carloads. In 1914 the Texas crop was practically a failure. Despite the recent damage estimated shipments from these points will range from 50 to 400 cars. Therefore it is probable that Texas will be a much more important factor in the commercial deal this season than in the last two years.

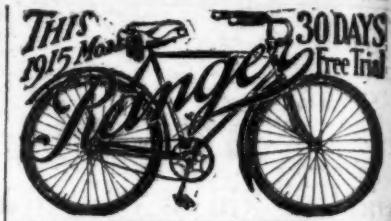
## STRAWBERRIES DESTROYED BY FROST AND SEASON DELAYED.

Reports received by the office of markets and rural organization of the United States Department of Agriculture from the Louisiana district, which shipped over 1,300 carloads of strawberries in 1914, indicate that the frost of March 21 destroyed three-fourths of the crop already set and will probably reduce the expected shipments of 2,000 cars by about one-fourth. The plants are setting another crop, but heavy shipments will be delayed for two weeks.

Reports from the Carolinas, central Alabama and Arkansas indicate no damage, but crop two weeks late.

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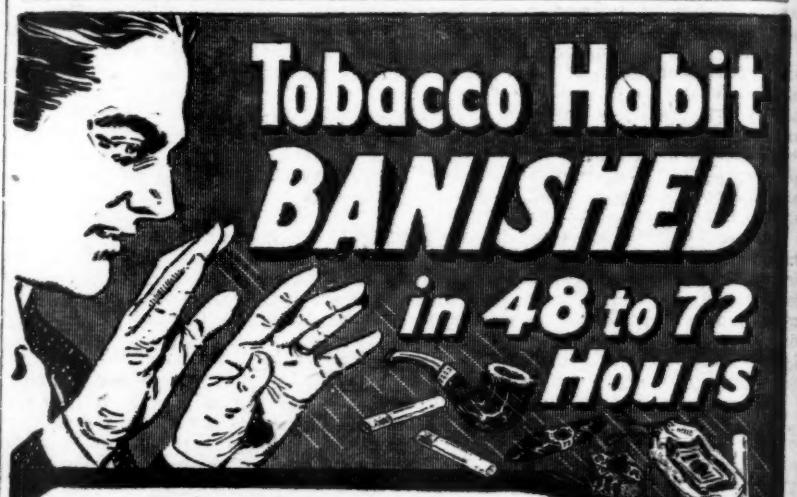
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# COLMAN'S RURAL WORLD

Vol. 68. No. 14.

ST. LOUIS, MO., APRIL 8, 1915.

WEEKLY.

## Instal a Proper Drainage System

And Get Rid of the Surplus Moisture---It Lets the Soil Breathe Freely and Enjoy Warmth, and Gives the Crops a Chance to Do Their Best.

By Clement White, Kansas.

**A**SURPLUS of moisture is sometimes more harmful than an inadequate supply. In unirrigated sections lack of moisture cannot be remedied; but a surplus of moisture can be drained off and rich soil gotten into condition for growing heavy yields of crops. The farmer who is interested in developing the soil to its full capacity cannot afford to underestimate the great advantages which result from draining swamps and other kinds of soil. The advantages of a properly installed drainage system are many. Surplus water is removed, permitting proper soil tillage. The texture of the soil becomes looser, facilitating the circulation of air and the capillary movement of underground water. The soil's capacity for holding water is increased. Proper drainage also influences the temperature of the soil.

As a result, growing plants root deeper and absorb greater amounts of plant food. The forming of ditches and gulleys in the field, caused during past years by heavy rains, is largely eliminated after the drainage system is established. Well drained soil is available for plant growth at an earlier date in the spring, and at a later date in the autumn, than undrained soil. As a result the crop season is lengthened considerably.

The above are a few of the many arguments in favor of draining land. The available acreage of fertile land in this country is not sufficient to satisfy present demands. High-priced grain will cause many land owners to adopt systematic methods of drainage, and increase their profits. Idle land and land which does not produce to its maximum has no place in the modern farming business.

### Beginning the Operation.

The success of any drainage system depends upon the manner in which the ditches are laid out and the way the tiling is laid. Before beginning operations the nature of the soil should be given consideration. The slope, general consistency of the soil, etc., are all of prime importance. The land owner should remember that a drainage system which gives profitable results must be correct in every particular. In the first place the bottom of the ditches must be true, and the fall must be equally distributed. Tile of the correct size should be selected. It never is advisable to use tiling to small for the purpose. A good outlet is also important. The outlet must always be kept open. Closed outlets have caused more damage in a drainage system than any other thing.

The size of tiling to use depends upon the lay of the land, the nature of the subsoil and the slope. The farmer who has much tiling to do should have a leveling instrument. The fall is important, and the ditches must be dug exactly correct. The greatest labor and expense connected with installing a drainage system results from the ditch digging.

The quickest and easiest method of digging the ditches is by the use of a ditching machine. After the land is properly surveyed and the targets in position, the machine should be adjusted so it will dig ditches of the proper depth. After these preparations the work of ditch making goes forward rapidly.

### Use of Ditching Machine.

The amount of work the steam or gasoline ditch digger will do depends upon the soil. The machine will not work satisfactorily in rocky soil, that is if the stones are of large size and numerous. Likewise mirey, marshy land hampers the effectiveness of the machine. If the soil is smooth and of normal texture around 100 rods of ditch may be dug in a day. This is much faster than digging by hand.

In communities where there is much tiling to do, it will be advisable to use a ditch digging machine. Where the drained fields are isolated the ditches are generally dug by hand. The long, narrow spade universally used for the purpose should leave the ditch around 15 inches in width at the top, and the

width of the tile at the bottom. Bright, sharp spades scour easily and cut through the soil faster and with less labor than rusty, blunt implements.

It is always advisable to have the course of the drainage system laid out by a competent engineer; but when such course promises to result in excessive expense, the land owner can do the work if he is ordinarily careful. Only general rules can be given for outlining the system.

### Points to Observe.

In the first place, the main drain should always follow the low parts of the field. The laterals run to all parts of the field, and connect with the main drain the same as blood vessels connect with the main arteries in the animal body. There are two extremes to be avoided, viz., getting the ditches either too deep or too shallow. The deep drain is not beneficial at so early a date as the shallow one. Later on the deep drain may give the best results; for it carries out one of the important essentials of drainage, viz., lowering the free water of the soil. Ditches are dug all the way from two to four feet in depth; a satisfactory depth, when the fall of the land permits, is from 30 to 36 inches.

It is seldom that the laterals are put in too thickly. They may be put in all the way from three to 10 rods. The nature of the soil determines the proximity of the laterals. If the soil lacks humus and is hard and bricklike, the laterals should be located not farther than three or four rods apart. Where the soil is in a normal condition filled with humus and porous, the laterals may be placed from eight to 10 rods apart.

### Draining Land That Rolls.

If the land is rolling, with normally smooth hill-sides the right way to commence operations is to begin at the lowest point of land to be drained and extend the laterals at right angles to the slope of the hill. As the hill side must be drained a main drain extends up the slope in order to receive the

laterals necessary for the amount of slope. If the main drain is located in the middle of the low land, the laterals are joined from each side. A drainage system is simply a big artery (the main drain) with a number of small veins emptying into it. The small veins are the laterals. There is no heart beat to force the water through the tiling; so the law of gravity must be depended upon to carry off the surplus. The slope need not be severe; but it must be sufficient to answer the purpose. It is no infant's task to dig a ditch by hand so that the fall is gradual and still sufficient to hurry the water onward.

There must be no depressions or elevations in the bottom of the ditch. The rule should be to leave a surface as smooth as a floor, and with sufficient fall to offer positive impetus to draining water. The only way to lay out the mains and laterals successfully is to carefully study the lay of the land. Two farms may lay side by side, and still differ radically in surface conformation.

### Size of Tile to Use.

If the main drain must carry the water from an 80-acre farm nothing smaller than 10-inch tiling should be used in its construction. The laterals for this main drain may be constructed of four or five-inch tile. The 12-inch tile will carry the water from around 120 acres. Occasionally only small fields are drained, then smaller tiling should be used. The eight-inch tile will drain 50 acres (occasionally it is used for larger tracts); the six-inch, 12 or 15 acres, while for very small tracts, say five acres, four-inch tile will be large enough.

Tiling will not fill up if laid so that the silt from flowing water cannot lodge in it, and the outlet is kept open at all times. Occasionally a rabbit will crawl in an unprotected outlet and die. Trash gains access in one way or another. As a result the drainage will be cut off at some inopportune time. The outlet should be protected by small, iron bars placed not farther than an inch apart. The outlet is the key to the entire drainage system.

After the system has been surveyed and the ditches dug, the important task of laying the tile must receive attention. There is only one method to lay tile and that is the right way, providing of course that a perfect drainage system is expected. Occasionally the tile is placed with the aid of hooks. Experienced men can do the job properly in this manner. The safest method for the amateur, and the average expert, is to place the tile by hand. The tile must be located in the ditch in proper alignment. Inspect each section and make sure that the ends fit together securely. If the jointed sections show an imperfection on the upper side it should be covered with a piece of smashed tile. Modern, round tile is complete in itself, and does not require any special "treatment" at the joints.

Concrete tile is becoming popular. Small machines for making the tile are upon the market. While clay tile is used in far greater quantities than concrete, many farmers find that concrete tile is entirely satisfactory.

Land drainage is a necessary and a profitable undertaking in many sections. Care in regard to the essentials will result in an effective drainage system.

### FOR A HAY CROP.

Timothy and millet are low in protein. Clover and alfalfa are comparatively rich in protein and that is the reason they are such good milk makers. Alfalfa is the better but clover is good. Clover and alfalfa both enrich the soil, but clover may be grown where it seems impossible to get a good stand of alfalfa. However, Mr. Joe Wing, an authority on alfalfa culture, says that alfalfa can be grown in many states by properly preparing the soil before sowing alfalfa. Have a patch of alfalfa if you can, but if you cannot, grow clover.

## Humus, the Life of the Soil

**H**UMUS is any kind of decaying organic matter in the soil. On the farm most of this comes from the refuse from crops from year to year and from manure which is put on the soil. Cultivation from year to year causes the breaking down of this organic matter or humus and the amount of it in the soil gradually is reduced.

Humus is a very valuable asset to the soil. Its water-holding capacity may easily be illustrated by the following: When saturated with water 100 pounds of sand will hold 22 pounds of water; 100 pounds of clay will hold 55 pounds of water; while 100 pounds of humus will hold 143 pounds of water. It is not difficult to see from these figures how valuable a supply of humus is in case of drought.

In soil where the supply of humus has been exhausted, the little moisture that is present is soon evaporated. In soils containing large amounts of humus, much more moisture is absorbed when it rains and it evaporates slowly. In this way plants are carried over a dry spell without injury, due to the water held by the humus, which would not have been present without it. Humus makes a soil more sponge-like and causes it to absorb water more rapidly than a soil without humus, so there will be less run-off after hard rains where humus is present than where it is absent. It therefore saves moisture in two ways; it absorbs it rapidly when it comes and holds it after it has been received. Humus by its absorbant power prevents erosion which is one of the most important factors in permanent agriculture.

It is in this humus that soil bacteria do their work. Since these bacteria are an important factor in the making available of plant food it is very essential that they be present. The number of bacteria in a soil will be proportionate to the amount of humus in that soil. The humus then is the most vital part of a soil, it is its life and without it the soil is dead.

Since humus is formed by the organic matter incorporated in the soil, it can be maintained only by the addition of organic matter to the soil. This can be done by putting back all the manure, straw and other waste material about the farm. It is sometimes necessary to grow some sort of green manuring crop, such as rye, sweet clover, red clover or sorghum, and turn it under. Rye is probably the most common one grown, being sown in the fall and pastured during the late fall and early spring and turned under after it has a fair start in the spring. It has the disadvantage of exhausting the moisture supply of the soil if allowed to grow too late.

Sweet clover is coming more into favor for a green manuring crop. It will grow on almost any soil and produce an abundance of green material to be turned under. It is also a legume and has the additional advantage of adding nitrogen to the soil. Some one has estimated that a good crop of sweet clover will add as much humus as an application of 15 tons of barnyard manure to the acre.

Missouri.

C. E. CARTER.

## Nuggets and Notions

In Agriculture  
By "Observer."

**S**T. LOUIS has passed an ordinance that egg, fruits and vegetables, except when the latter are sold by the bunches, shall be dealt out by the pound. This will have a tendency to put the Black Minorca chickens a notch or so further ahead.

In building a cement silo, where sand prevails, so that it is impossible to plaster cement against it, a "form" may be built nearby, and concrete rings be made. These may be lowered into the silo pit. One by one. Of course, the joints can be closed by plastering.

Potato bread may keep one alive, but there are those who say life is not worth living under the conditions.

One farmer gets rid of quack grass by breaking and cultivating the ground till June and sowing to buckwheat. Much harrowing may bring out quack roots. These he winds up with a horse rake and burns when dry. It is better that the soil shall have been cultivated the season past.

An Ohio experimenter planted one-quarter soy bean seed in his corn. The plants grew together till the beans were 30 inches high, and then dwarf Essex rape was sown between the rows. When all was ready it was hogged down, and the porkers had a balanced ration, a good time and good growth.

The South is substituting potatoes for cotton this season. If so, the spud may be as cheap as the pod.

Some sow rye, crimson clover and buckwheat together as a cover crop. Plant all in July. The buckwheat springs first, falls down, and the rye and clover come up through it.

The mother-in-law is still a stale joke but in her life the grandmother of the rooster is not to be sneezed at, even if she is a little out of date. To get a goodly lot of future eggs we shall have to breed grandmothers well.

Now one man with a milking machine can do the work of three or four milkers. We shall see better things yet. It was only two at first.

It is asserted that there is no more alcohol developed in making silage than in making good bread.

When you sell "thin" or poor cream you are giving away skim milk.

Just two or three listed furrows every two or three rods is now considered the cheapest way to prevent soil-blown. This will often enable one to break the soil earlier in the spring, if the season is weepy.

The duck does not demand any special nest box, but prefers the floor.

The butter fat record is held now by an Ohio Guernsey. She was fed every few hours and milked four times a day. She gave 1095 pounds of butter fat—being her own weight every three weeks. The champion before her was also a Guernsey, which indicates something coming.

An authority states that knocking out wolf teeth in horses does neither good nor harm, barring the unnecessary suffering. They have no connection with eye troubles, as usually supposed.

Remember about that strip of cow-peas in the line of march of the chinch bugs this spring. It is a trenched region on which you can retire during the invasion.

By watching closely for little bare spots on calves and applying an iodine ointment the extension of ringworm may be prevented. It is contagious.

Wire worms do not eagerly attack the legumes. Expose them later by fall plowing. Salt, unless sufficiently strong to injure the ground for plants, will not kill wire worms. Some birds eat the beetles.

Train your young horse to an open bridle. Binders are a useless contrivance, and often causes a horse to shy and run. Better let him see than imagine.

Cedar poles make good chicken perches. While cedar wood will not wholly drive away insects, many do not like its odor. By soaking other woods in oil, creosote, etc., the same result may be obtained.

Michigan has a law forbidding false advertising. Thus, in that state a man cannot say that he will sell you the best butter for 20 cents when it is found that what he offers in oleomargarine. If he does he pays for it.

For farmers' wives the blue flame oil stoves are a great success.

There seems a general agreement among the contributors to various agricultural journals that wheat is greatly benefited by spring rolling. The rolling should be across the seeder rows. One case is reported where the yield of a rolled portion of a field nearly doubled that of the part left unrolled.

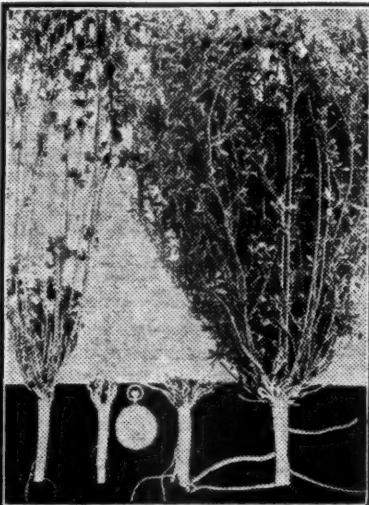
There can be little doubt that a fanning mill is a paying investment, even if a man only takes the dust out of the oats he feeds horses.

A western man asserts that tractors do not plow well after rains or in wet places, and that there are places and conditions that will demand horses, no matter how good a tractor one may own.

There is much yet that we do not know about making a reinforced fence post out of cement. So many are broken that perhaps the outlook is in a larger post—and more cement.

## CONSIDER HARDINESS IN ALFALFA AND OTHER CROPS.

As seed time approaches the question of what varieties to plant becomes an important one. There are numerous factors to consider, but from an economic point of view, the question of hardiness, in a broad sense, should be the first to consider. In a strict sense of the term a "hardy plant" is one that will live over winter in the open, or one that will endure low



The Difference in Stooling Habit of Hardy (right) and Non-hardy (left) Types of Alfalfa.

temperatures, but there are also traits in plants such as disease-resistance, drought-endurance, and insect-repelling qualities that might well be termed hardy traits.

Under favorable conditions with successful crops these traits are usually lost sight of, and seldom are given the consideration that they should have, especially when the seed is selected for planting.

There are many very important points to consider in selecting varieties to plant, such as market demands, earliness, prolificness, and numerous other qualities peculiar to the different crops. It is not, however, the purpose of this article to outline a list of the best varieties to plant, but rather to impress on the minds of the farmer what great opportunities he sometimes has in the midst of dismal crop failures, to make a little seed selection from plants that have at least partially survived the catastrophe that has caused the failure. From this start in selection he may bring success out of failure and avert another failure for the future.

Numerous examples could be cited where splendid varieties, hardy, and of great commercial value had a small start from some observing man who took pains to select, propagate, and improve them. Some examples are: The Grimm's alfalfa, the wilt-resistant fax, disease-resistant cantaloupe, and Concord grape.—Philo K. Blinn, Colorado Experiment Station.

## DISKING STUBBLE LAND BEFORE PLOWING.

The disking of stalk or stubble land before plowing is one of the most important practices in the handling of soils. The recent droughts have emphasized its importance. Each year larger numbers of farmers are following this practice which has been recommended and used by the Missouri Agricultural Experiment Station. The disk of land before plowing is one of the things which all farmers but particularly those located on high priced corn belt land should practice. Some men have found it profitable to disk blue grass sod, but the practice has its greatest advantage when applied to stalk and stubble land.

The soil will absorb more water when it is disked before plowing. This has been a very important point in recent years when the soil has been rarely soaked with water. The more water stored in the soil, when the crops are put in, the larger will be the returns if the season is dry. The thorough mixing of the stalks, stubble and other surface organic matter with the soil, which results from the disking, is very advantageous. On stalk land particularly the weighted disk takes the place of the stalk cutter and this at the same time thoroughly mixes the organic matter with the soil. A disk may also be used to cut up green manure crops before turning them under and brings about a more thorough mixing of this organic matter with the soil. One of the fundamental principles in plowing any land is to thoroughly mix the organic matter with the surface soil, and this is greatly favored by disking in advance of the plow.

Land with a pulverized surface can be turned with a plow in such a way as to give a much better seed bed than where the disking is not done.

The land plows more easily and the pulverization is at the same time more thorough. The disk harrow is one of the most valuable of farm implements and its use in advance of the plow is just as important as its use following the plow.—M. F. Miller, Missouri.

## THE TOP SOIL.

The top soil of an acre of arable land to the depth of eight inches is estimated to weigh about 1,000 tons, so that a dressing of 500 pounds of fertilizer to the acre is really the application of only nine ounces of fertilizer to a ton of soil, and the quantities of actual plant food, nitrogen, phosphate and potash, seem infinitely small; and yet, these minute quantities of available plant food exert a wonderful influence on the growth of the crop.

When we apply a top dressing of 200 pounds of nitrate of soda to the acre, we are putting in the soil only about half an ounce of actual nitrogen to every 35,340 ounces of soil, and still the effect is great. It seems marvelous!—H. Mortimer, Illinois.

The grouch is a rust on life's machinery.

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# COLMAN'S RURAL WORLD

A. B. CUTTING, Editor.

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## TO MAKE PRODUCTIVE IMPROVEMENTS ON FAVORABLE TERMS.

Three plans by which farmers in actual practice have succeeded in improving their personal credit and securing loans at less than the prevailing rate of interest are outlined in a new publication of the United States Department of Agriculture, Farmers' Bulletin No. 654, "How Farmers May Improve Their Personal Credit."

The first of these plans has worked out in certain localities in North Dakota so well that the farmer has been able to borrow money on his personal note at eight per cent at a time when the usual rate in his vicinity varied from 10 to 12 per cent. To secure this reduction in interest, the farmer agreed that the bankers should buy the dairy stock for which he wished the loan and sell it to him at actual cost. The purchase in a number of cases was conducted with the advice of state or federal dairy specialists. The men who furnished the money were thus in a position to make certain that it was used for productive improvements which would enable the borrower to repay the loan. Under this plan, in fact, the farmer may be said to have borrowed the improvement itself instead of the money to buy it with, for the disposition of the money was taken out of his hands.

A plan of the same general character was carried out a year or two ago in southern Idaho, but in this case three or four banks united in the purchase of a carload of dairy stock. In another case in Nevada a local creamery supplied the money and held back a part of the returns from milk and cream delivered by the borrowers. Altogether 491 cows and heifers were distributed among 64 farmers, the aggregate amount of money represented by the loans being \$39,483. This is the simplest of the three methods. It consists essentially in permitting the lender to say how the money that he loans shall be spent. Under such circumstances he naturally feels more secure, and the rate of interest lessens with the risk.

In regions where for various reasons this plan has not proved possible, another method is to have the farmers collectively assume a certain guarantee for the notes given by individuals. In southern Montana, for example, 19 farmers organized an association and appointed trustees to represent it in negotiations with a local bank. The trustees were authorized to guarantee a limited amount to the bank on the joint and several liability of the association members. With this additional security the bank agreed to advance \$5,000 to the association at eight per cent when the general bank rate was 10 and 12 per cent. Two delegates from the association purchased with the money two carloads of heifers which were distributed among the

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members, each animal being charged less the committee in charge believes with a proportionate share for all the incidental expenses connected with the transaction. Each purchaser pledged himself to care for and breed the cattle by methods approved by the trustees.

In the third plan the guarantee is furnished not by the farmers themselves but by an outside interest. As the plan was developed in Wisconsin and Minnesota, this outside interest consisted of local business men who were in their way as much concerned as the farmers with the general improvement of agricultural conditions in their regions. Under this plan the business men subscribed a certain percentage of the funds loaned with the understanding that this was to constitute a guarantee fund to protect the bankers. Otherwise the plan was in its essential principles like that adopted in Montana.

None of these methods require more than a temporary organization. A permanent co-operative credit association is, of course, a different matter, which has, however, many advantages. Such associations encourage habits of saving, afford training in business methods and may establish a collective fund for common agricultural purposes as well as providing loans to their members on more reasonable terms than they could obtain individually. The fundamental principle of their management is that no loan must be granted unless the member has a bountiful return.

Something is wrong in our marketing system when a small crop brings more money than a bountiful one.

## 40 Years Ago • 20 Years Ago

In Colman's Rural World.

(Issue of April 10, 1875.)

A farmer at Hazel Green, Iowa, sold his last year's clip of wool—6,000 pounds—at 45 cents a pound, bringing him the nice little sum of \$2,700. Diversified agriculture did it.

A man in Greencastle, Ind., claims to have a white Morgan mare, 13 years old, that has been timed a number of times and that has walked six to six and a half miles an hour, during the past year.

A bill has passed both houses of congress increasing the duty on imported champagne. This will bring joy to the hearts and dollars to the pockets of New Jersey orchardists, from whose cider mills most of the precious substance comes.

Prof. H. J. Waters, professor of agriculture to the Pennsylvania Agricultural College, has been appointed dean of the Agricultural College of Missouri and director of the experiment station.

It is claimed that the "grip" is a Russian production. If this is correct, Russia cannot only take the cake, but the whole bakery. "La grippe" has all the disagreeable features of ague, intermittent fever and general cussedness.—L. E. Clement.

Never in its history has oleo been so cunningly advertised as now. The advertisements appear where they were never found before, and in such guises as the shrewdest butter maker would never suspect. If anyone thinks that oleo is downed, he is mistaken.

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## THE HEN AS A POSSIBLE TYPHOID CARRIER.

The problem of the carrier in various infectious diseases has long vexed the sanitarian who is bent on discovering every possible mode of transmission and every portal of entry for the germs. Human carriers of typhoid and diphtheria germs, themselves immune to attacks of the malady, are now watched for in nearly every community, and the danger which they represent as a latent source of infection is clearly recognized. Doubtless, says The Journal of the American Medical Association, many of these possibilities for spreading disease without the presence of detectable symptoms are still unrecognized. In typhoid, it has been shown that some of the lower animals may be made typhoid carriers; and attention has lately been directed to such animals as might be expected to become carriers by reason of their environment or habits.

Mitchell and Bloomer of the bacteriologic laboratory of the University of Missouri have pointed out that the chicken is a domestic animal which might often come into contact with typhoid discharges. The mechanical transference of typhoid bacilli on the feet and bill of a chicken does, without question, occur. By various methods they have attempted to follow the germ. From the work of the Missouri bacteriologists it would seem that the hen is highly resistant to typhoid. It not only fails to take the disease, but apparently cannot be made a carrier except in a mechanical way.

## THE "FARM DOCTOR."

Is your farm sick? Is there anything the matter with your soil, crops, or live stock? Does your farm as a business plant pay a dividend? If not, call in the "farm doctor." Who is he? Perhaps there is none in your county, but many counties have such an official. He is generally known as the county agent, farm advisor, or county agriculturist. The county agriculturist should have both a scientific agricultural training and considerable practical farm experience. He should not only be able to tell what treatment an unproductive soil, tree, or cow needs, but he should be able to plow, spray, prune, feed, and milk. Before recommending any policy to a farmer he applies the test of "will it pay." The county agriculturist aids the farmers in marketing their products, in buying their supplies, and in doing business with one another. He is the farmers' counselor and advisor and is on the job eight hours in the forenoon and eight hours in the afternoon. Each county may, by conforming to certain requirements, avail themselves of state and national appropriations for securing the services of a county agriculturist.

## Making a Water Garden With Thirty-Five Dollars, a Little Labor and Lots of Enthusiasm.

By A. B. Choate, Minnesota.

THREE years ago this spring, with the assistance of common laborers, secured from the free employment bureau of Minneapolis, Mrs. Choate and I planned, constructed and stocked a water garden from which we have derived much pleasure. Our experience as amateurs at this work may be useful if for no other purpose than as a warning what not to do.

We first made an oblong excavation, irregular in shape, about 12 by 15 feet in dimension and about three feet deep, with sides flaring like a tin pan. To prevent the cement cracking by frost and thus heaving the earth, a cushion of sand about four inches thick was placed on the sides and bottom of this basin. This was covered with cement about three inches thick, making a finished cement basin about two and a half feet deep. On the lower side, a small depression in the top of the cement was made for overflow. Boulders from six to 18 inches in diameter were placed in the cement at the top and around the rim, and sod and water loving plants placed around the edge in pockets inside the rim to give a more natural pond-like effect.

About half a mile distant were some large boulders, some of which probable weigh a ton. These were brought and grouped on one side of the excavation with one large boulder resting in the basin. Soil was placed among the boulders and several kinds of flowers and vines were planted there. Adjoining the boulders and partly facing the pond, a rustic canopied seat was constructed, over which were trained maderia, crimson climber and Santerbury bell vines. These vines, with little attention, draped the seat and canopy very prettily and provided a secluded, attractive resting place.

Surrounding the pond and at irregular distances from it, we made a walk of "stepping stones" consisting of broken cement sidewalk blocks. Numerous varieties of iris, gladiolus and various annuals and perennials were planted between the stepping stones and the pond. This walk leads to the street at one side of the group of boulders and terminates at the canopied seat at the other end. Leading from the water garden to the dwelling house, a distance of 150 feet or more, is a walk of stepping stones which extends through a pine grove. Over the walk among the pines there is a rustic pergola covered with wild grape vines. In fact, the water garden is used as a center piece or setting to which all garden walks lead and with regard to which the whole garden is arranged.

### Kinds of Plants Used.

We stocked the water garden with red, pink, white and yellow lilies, water hyacinths, peacock feather, rice grass and some other water plants and gold fish. We also placed in boxes some cat-tails and other wild water plants.

All the lilies were planted in one large box but the other plants were placed in separate boxes and tubs to prevent the more vigorous growers from overrunning and destroying the slower growers. Soil was placed about the boxes to hide their sides and all soil was then covered with clean sand to keep the water clean.

The results of the first year were very satisfactory. We had from five to 10 lilies blooming every day during the warm weather, as well as many beautiful blossoms of hyacinths and a vigorous growth of peacock feather and other plants. Last summer we had from 10 to 15 larger lilies blooming every day and very satisfactory blossoming of iris, gladiolus and other plants between the pond and the surrounding walk. Outside the walk, but arranged with regard to the pond, were our general shrubbery and garden flowers.

The pond was filled by means of a garden hose and the water was allowed to stand until it became warm,

supplying only enough from time to time to take the place of what evaporated. Running water, we were informed, was likely to be too cold for lilies and we, therefore, made no attempt at any fountain effects. We overflowed the pond only enough to clean the surface of the water occasionally and keep the fish healthy. The gold fish not only took care of themselves without any feeding but grew wonderfully during the summer and multiplied each summer to several times their original number.

### Stored Lily Roots in Winter.

The people who sold us our stock told us that it would be safe to leave the roots in the pond over winter, if well covered, to prevent freezing and thawing. But a park board authority who had charge of a similar pond warned us that it was risky to leave high-bred lilies out in that manner, and upon his advice we took the roots up in tubs and placed them in a basement where they would not freeze and kept them slightly dampened during the winter until the weather became settled so that the sun would warm the water. In transplanting we disturbed the roots very slightly.

During the growing season I frequently clipped off all lily pads which showed signs of ripening or decay but removed no others.

Precautions taken to prevent cracking of the cement by frost were evidently not sufficient, for last spring numerous cracks appeared which were repaired by the use of cement about the consistency of cream. I am told that these cracks are likely to increase in size and in number each winter, that it is impossible to construct a lily pond in this climate so that it can be insured against cracking. Mr. Paul Mueller, a neighbor, who is a landscape architect, told me that he has constructed several water gardens in this state without any difficulty from cracking. He told me that a foot or more of cushion should be used and that the cement should be five or six inches thick, reinforced with iron strips. I saw him construct a basin in that manner last summer. This additional precaution, of course, increases the initial cost some, but saves trouble and expense later.

### The Cost Was \$35.

The cost of our pond, including the hauling and placing of the heavy boulders was about \$35, exclusive of my own labor. This cost would be greatly increased, of course, if done by an expert or if greater precautions had been taken to prevent cracking by frost. Probably the cost would have been at least doubled or trebled if an expert had been employed to do the work.

We paid \$17 for plants and gold fish to stock the pond, making a little over \$50 cash outlay for the pond and stock. Any one with a little ingenuity, and who is willing to take the trouble, can build a lily pond and the expense can be made considerably less than ours was if the pond is smaller and some of the features we adopted are omitted.

### "A Fly in the Ointment."

Our enjoyment of the pond, as well as that expressed by some of our neighbors and friends, would have well repaid for the trouble and expense "if a fly had not got in our ointment." Our garden was unenclosed, and as the warm weather approached this pond was appreciated by the dogs in the surrounding country as well as it was by us, and we were obliged to fence it with wire to keep the dogs from wallowing among the lilies. Furthermore, the boys in the neighborhood, but most particularly from adjoining neighborhoods, found it a great temptation to fish and commit other depredations when no one was around to prevent. The fish were shy, not hungry, and refused to bite and one gold-fish fisher, evidently becoming tired of the sport, tied his line to the wire fence and went off and left it with the result

that a robin took the bate and had to be killed in order to remove the hook. This was particularly exasperating since our enjoyment was increased by sharing it with the birds. Spears, stones and other missiles were used by others so that some of the fish were killed and mutilated and left in the pond to rot. In their eagerness to get the fish the wire fence was broken down and lilies uprooted.

Upon the whole we have concluded that a lily pond in an unenclosed garden, while a delight to yourself and appreciative neighbors, is likely to be too attractive to another class to be an unalloyed pleasure. I like vinegar and salt and pepper and cream and maple syrup, but do not care for them as a mixture. I also like boys and dogs and birds and flowers and lily ponds, but they don't mix well unless the mixture can be carefully supervised. If this mixture can be avoided or carefully supervised, I know of nothing which pays better for the necessary labor and expense than a lily pond.

### SPRAYING APPLE TREES NETS \$161 AN ACRE PROFIT.

Insects are high liverers. On an acre of apple trees they may destroy a hundred dollars worth of fruit.

This has been brought home to the Missouri fruit growers in the last two years by a series of experiments carried on by the College of Agriculture of the University of Missouri. The average value of the fruit of an acre of unsprayed apple trees was found to be \$18.05. Four careful sprayings made this value jump to an average of \$187.19 an acre.

On one orchard in 1913 the net profit due to spraying was found to be \$161.12 an acre.

The average cost of a tree of the first spraying was 6.6 cents, 13 cents for the second, 9.5 cents for the third and 8 cents for the fourth—a total of 37.1 cents a tree, or an average of \$22.26 an acre.

These demonstrations were made by professors of the department of horticulture of the university in cooperation with Missouri orchardists. The work was carried on in 14 counties, Barry, Boone, Buchanan, Cape Girardeau, Clark, Clay, Cooper, De Kalb, Greene, Jackson, Laclede, Lafayette, Lawrence and Marion. Orchards in different communities were chosen for the work, and the persons living in those communities were notified of the day on which the work would be done. From 15 to 20 orchardists attended each meeting.

### STARTING A BLACKBERRY PLANTATION.

Under good management an average yield of 2,300 quarts of blackberries per acre can be expected. Where the soil is very deep and rich and the best moisture conditions are found this may be increased to 5,000 quarts and certain varieties on the Pacific slope have even given 7,000 quarts an acre.

In selecting a site for a blackberry plantation, the most important considerations are the moisture of the soil and the accessibility of a market. The blackberry is a tender fruit, the keeping qualities of which are seriously affected by jarring over rough roads. It is, moreover, essential that the berries should be placed on the market as quickly as possible after they are picked if they are to command a good price. The best land is a deep, fine, sandy loam with a large supply of humus and abundant moisture at the ripening season. On the other hand, the plants are often killed if water stands on the plantation during the winter.

The year before the establishment of the blackberry plantation the land should be planted with a cultivated crop. This insures the thorough rotting of the sod and will help to destroy the cutworms and other insects injurious to the young plants. The soil should be plowed to a depth of about nine inches in the spring and a thorough harrowing should be given the whole field before the plants are set. This is usually done as early in the spring as the land can be properly prepared. The earlier the plants are set the larger the proportion that live and the better their growth. The

roots should be set deeply for the canes break easily if the crowns project above the surface of the ground. The tops should be cut back to six inches or less in length. Cultivation is necessary and the plants should, therefore, be set sufficiently far apart to permit of it.

During the first summer some intercrop may be grown between the rows, which will greatly reduce the cost of the berry field that year. This should be one that requires constant cultivation and at the same time one whose growth will not be large enough to shade the blackberry plants. Such truck crops as cabbage and potatoes are excellent for the purpose, while corn and small grains should be avoided. By the second summer the plants will be large enough to occupy all the space and an intercrop will not be possible.

In both summers, cultivation should begin early in the spring and be continued at intervals of from one to two weeks throughout the season in order to provide a dust mulch for the retention of moisture and to keep down suckers and weeds. Suckers are apt to spring up from the roots at various distances from the parent plant, especially when the roots are cut. Digging up these suckers is a favorite way of securing new plants, but this practice interferes, of course, with the yield of the berries.

A little sawdust or castings on the outside of a fruit tree denotes the presence of a borer. Borers usually attack young trees. To kill the worm, inject a solution of bisulphide of carbon into the bark. Use an oil can to inject the stuff. Fill up the hole with putty or with grafting wax, and then, if it is large, cover it over with grafting wax.

## Official Denial

No War Tax on Homestead Land in Canada

The report that a war tax is to be placed on Homestead lands in Western Canada having been given considerable circulation in the States, this is to advise all enquirers that no such tax has been placed, and there is no intention to place a war tax of any nature on such lands.

Ottawa, Can., (Signed) W. D. SCOTT,  
May 15, 1915. Supt. of Immigration.

## How to Make Farming Pay

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## Landscape Gardening

### Walks, Driveways, Fences---Preparing Soil for Lawns---Seventh Article of Series.

By the Editor.

WALKS and drives have an important influence on the appearance of any place where they are located. Unless laid out with the view of lessening their artificialness, they will detract from the natural effect that is so desirable in the home landscape. Walks and drives simply serve to link the more important features of the landscape together and to serve as entrances. There should be as few of them as possible.

The general idea of their arrangement should be simplicity and convenience. In large grounds they should be laid out in moderate curves, not winding nor twisting, but gracefully curving from the point of entrance to the house. It is usually better to enter a place near one corner or the other. Whether the road should come out again at the same point as it entered or whether it should leave the place at another point, are questions which the size of the grounds and other considerations will govern. The curves should not be so marked as to induce short-cuts across the turf. Have the curve appear necessary by planting trees or shrubs at places where the curve is most marked. Furthermore, by planting such material here and there along the side of the driveway, the house will be hidden at times and thereby will present different views as it is approached.

On small lots, economy of limited space restricts the walks to straight lines. In such circumstances, the best road or pathway is the one that takes the shortest line.

The width of driveways depends upon their length and the amount of travel upon them. Short driveways may be only eight to ten feet wide, but long ones should be wide enough for two rigs to pass easily. Have the foot paths from three to five feet wide.

Walks and driveways should be properly graded. Have them convex so as to give drainage. Keep the edges of the turf cut and remove all weeds, stones and rubbish as often as necessary.

#### Fences.

The erection of fences sometimes is imperative, but, at best, they are necessary eye-sores. They are an advantage to a place only insofar as they afford protection from without and give seclusion. Where they are necessary and permanent the best thing to do is to have a solid barrier of close-growing vines, a hedge or a fence made of wire, which, at a little distance, is almost invisible. The fence should be as inconspicuous as possible. If all the fences that are unnecessary in town and country were removed, a great harbor for weeds and insects would be done away with and a great saving of labor and expense would be effected.

#### The Soil for Lawns.

It is not always possible to choose the soil for a lawn as the site seldom is selected with this consideration in mind. The ideal type of soil for lawns is a rich, retentive loam. A clay soil bakes quickly, which condition is enhanced by the excessive watering that the lawn requires. Sandy and gravelly soils are too open and also dry quickly; they do not retain soluble plant foods at the surface, where it would be most available for use by the roots of the grass.

#### Fertilizing the Lawn.

Soils that contain plenty of vegetable matter make the best lawns. The permanent beauty of a lawn depends largely on the preparation and the fertility of the soil. If the soil is not naturally rich it should be made so. A good dressing of stable manure should be worked in. Artificial or commercial fertilizers also may be used, with advantage. Among these are bone meal, muriate of potash and nitrate of soda. Instead of the muriate of potash, wood ashes may be used. Bone meal may be used at the rate of one ton to the acre, and ashes at the rate

of about 40 bushels. The amount required can easily be calculated by getting the area of the plot in square feet and dividing same into the number of square feet in an acre, which is 43,560. Divide the result into the quantity required for an acre and you have the amount necessary for the plot. Nitrate of soda had better not be applied until the turf is started; then, in the early part of the season, it may be applied as a topdressing at the rate of about one-half a pound to the square rod.

#### Grading and Leveling.

If the lot is small, the surface of the lawn may be made level. Large areas with undulations are more difficult to model. The idea of the prevailing slope and the contour desired must be foremost in the mind. Maintain these curves and rolling surfaces exactly in the trend and direction of the surrounding land. Minor irregularities should be smoothed out and leveled. On city lots, soils from excavations and cellars should be replaced with good soil. While this work of grading may be done in the spring, it is best performed in fall, so as to allow for settling.

#### Preparation of Soil.

The soil for a lawn is best prepared the year before, if possible, by growing upon it some crop that will loosen the soil and one that requires constant cultivation. If the work must be done in spring, plow or dig deeply. On small lots dig the whole surface evenly. Do not dig to a depth of a foot in one place and only a few inches in another. Such a practice is noticeable later on in the character of the grass that grows. Some soils may require subsoiling and underdraining. Before sowing the seed remove all stones and lumps and have the surface as fine and smooth as possible. The creation of a good permanent sod depends as much upon the preparation of the soil as upon anything else.

The next article of the series will deal with turf-making. Sodding and seeding will be discussed, including pointers on the kinds of grass seeds to use and when, where and how to use them.

#### ANNUAL PLANTS FOR NEWLY GRADED GROUNDS.

A few well-chosen annual plants placed on newly graded grounds will do much to take the place of trees and shrubs until the latter may have time to grow. It is often a question in a new community where slow-growing vegetation has not had an opportunity, as to what may be done to make grounds seem less bare. A lawn can be made in a few weeks and its appearance may be greatly increased by the addition of a few well-chosen annuals.

As particularly suited for this purpose the following plants, which may be grown in most parts of the United States, are suggested:

Tall foliage plants—Castor bean, caladium, canna.

Tall flowering plants—Cosmos, scarlet sage, sunflowers.

Border plants—Alternanthera, alyssum, ageratum, coleus.

Medium tall annual flowering plants—Geranium, California poppy (Eschscholtzia), zinnia, marigold, aster, petunia, cockscomb, larkspur, nasturtium.

Climbing annuals—Cobaea scandens, moonflower, Japanese morning glory.

Varieties in color and contrast, in height and general effect should be studied in placing the plants.

The general appearance of plants on the home grounds or in the garden is more or less dependent upon the condition of nearby lawns.

Lawns are the foundation of all decorative planting. A good, well-kept lawn contributes more to the beauty of grounds than any other single factor. For this reason special

attention should be given to the grading, cultivation and enriching of the area to be devoted to the lawn. After good preparation come good seed and care.

The variety of soils which will be encountered and the special treatments which they need render it possible to make only the broadest generalizations here. For localities north of St. Louis, Mo., and Richmond, Va., lawns can be formed chiefly of bluegrass, redtop, and white clover. South of this point Bermuda grass and St. Augustine grass will have to be relied upon chiefly, although it is said that in some places alfalfa has been employed with good results.

The United States Department of Agriculture has a bulletin on "Lawn Soils and Lawns" (No. 494), and a bulletin on "Beautifying the Home Grounds" (No. 185), which will be sent to applicants as long as the supply lasts.

#### EASILY-GROWN VEGETABLES FOR AMATEUR GARDENERS.

Radishes, lettuce, beans, beets, and tomatoes are all comparatively easily-grown vegetables which give satisfactory returns in the spring garden. The United States Department of Agriculture's specialist recommends these particularly for use in school gardens which are run for the benefit of the children. Not only teachers, but others desiring to raise these truck crops in their own home gardens may benefit from these suggestions:

##### Radishes and Lettuce.

Radishes are hardy plants and thrive best during the cool weather of early spring and late autumn. In the South they can best be grown during the winter and early spring months. The seeds should be sown in drills, in rich, well-prepared soil, placed about half an inch apart and buried not deeper than one inch nor less than one-half inch. When the plants are showing the second set of true leaves they should be thinned to stand from two to three inches apart in the row.

Lettuce is a hardy plant and thrives best during early spring and late autumn. The seeds should be sown in drills in the open or in boxes in the window. If in the open, the seeds should be scattered about one-half inch apart along the row, and covered not more than one-half inch with earth. Firm the earth well over the seeds, so as to bring the moist soil in contact with them. When the plants are well up, thin to six inches apart in the row. If the seeds were sown in a window box, hotbed, frame or greenhouse, transplant the young plants to stand two by two inches apart as soon as the seed leaves are well expanded, and when they begin to crowd transfer them to their permanent places in the open, if the weather will permit. In the field, they

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One application soothes and heals a rough pimply skin, and where repeated, quickly effects a cure. Eczema, Erysipelas, Tetter, Ulcers and all skin diseases yield to its curative properties. 50c. a box. At all Druggists. Send for free sample and book, "Health and Beauty." JOHNSTON, HOLLOWAY & CO., 1729 Spring Garden St., Phila., Pa.

## OINTMENT

Let The Little Devil  
On Tractor do your Horse Work and Gas Engines Work on the Farm. IT IS A WONDER. See it here, or write for full particulars. Address Weber Imp. & Auto Co., 1900 Locust St., St. Louis. Only four blocks North of Union Station.

should stand at least six inches apart each way.

#### Beans and Beets.

Beans are tender plants. They can not endure frost and will not stand transplanting well. It is best to wait and plant the seeds of this plant in the open where the plants are to grow, delaying the work until severe frosts are past. Plant in rows one foot apart, placing the seeds about two inches deep at intervals of six inches. Keep the soil loose and free from weeds.

Beets, while they are hardy and can be planted at the same time as radishes and lettuce, require a longer season for maturing. The seeds should be planted in rows one foot apart, placed an inch apart in the row and covered one inch deep. When the plants are well up (two inches high), thin to four inches apart in the row. Keep the soil well tilled at all times.

#### Tomatoes.

The tomato is the most exacting of all the plants included in the collection. From Washington southward the seeds may be planted in the open at the same time as beans, but to the north of this point the seeds should be sown in boxes, hotbeds, or greenhouses from the first to the middle of March, the young plants being transplanted to stand two by two inches apart as soon as the first true leaves appear. When they begin to crowd in their new position, shift them to four-inch pots or to cans such as are used by canners of tomatoes, and keep them growing slowly until about May 20 to June 1, when it will be safe to place them in their permanent locations in the garden. Set the plants in rows 18 inches apart and place the plants about 20 inches apart in the rows. Each plant as it grows should have all side branches removed and the main stem tied to a stout stake, about five feet tall and at least an inch square, driven firmly in the ground.

The use of sprays for controlling insects and diseases is accepted by all progressive fruit growing communities as a necessity.

## HORSE BREEDING AND RAISING

### MISSOURI HARNESS HORSE NEWS AND VIEWS.

Editor, *Rural World*:—My attention has just been called to Hal B., by Hal Dillard. He started in a 2:25 class as a 4-year-old and won a record of 2:16 1/4. As a 5-year-old he started 12 times and was a heat winner in every start and closed the season with a record of 2:09 1/4. As a 6-year-old he started 11 times and was a heat winner in all his starts but one, and took his record of 2:04 1/4.

As a 4-year-old he sired Hal B. Jr., 2:02 1/4, his first standard performer. Since that time he has been in the stud as a public stallion, a portion of the time farmed out.

His dam, Ellen M., is an inbred Blue Bull, being by Blue Boy, son of Blue Bull, 75; dam, Punch, by Blue Bull 75. I find no effort to trace her breeding, so it is safe to say the dam of Punch was untraced. Ellen M. at one time was the dam of the fastest brother and sister ever bred, being the dam of Hal B., 2:04 1/4, and Fanny Dillard, 2:03 1/4; a third, Ellen D., 2:10 1/4, just missed a 2:10 record.

It is safe to say that no pacing stallion, yet bred, has been as successful, as a sire, as Hal B., without the help of a harem of choice or producing dams. Any horse that is a heat winner in 22 races, inside of two years, is a wonderful race horse, or must outclass his fields, in a manner not likely to occur in these race horse times. As a sire he now has 12 in the 2:10 list, with an average under 2:07. In 1914 he added two trotters and 12 pacers to his list, and is now credited with five trotters and 55 pacers. His first trotter was sired when he was 5 years of age and was a brother to his first pacer. His first pacer to enter the 2:10 list was Hallock M. 2:09 1/4, and was sired when he was 5 years of age, showing that he did some stud duty when he was doing his hardest racing. The rest of his lists were sired, after his racing career had ended.

Hal B. is a long way the greatest speed siring son of Hal Dillard, although his dam is an inbred Blue Bull. Most of his early speed was from mares with Blue Bull blood, showing it is blood that can be crossed back on itself without impairing its usefulness as blood to produce race horses.

Hal B., 22 years of age in 1915, is only three years older than Dan Patch, and as a pacing horse sire has shown his superiority. Hal B., Jr., is faster than any son or daughter of Dan Patch and his twelve 2:10 and better; his performers average faster than Dan Patch's 2:10 performers.

It is impossible, with his colts scattered from Ohio to California and Oregon, to make the same effort for them that is and has been made at the Savage farm, where Arion, Cresceus, Directum and other great sires have for years been siring the dams of Dan Patch colts. Roy Wilkes, 2:06 1/4, out of a Blue Bull dam, should furnish as good speed producing daughters, as any horse that has ever lived. Hal B., in Dan Patch's place, would be unapproached as a pacing sire, and incidentally would sire a good lot of 2:10 trotters.

This letter should appear in the second issue of April, 1915, and up to the time of writing nothing has been heard of our new state fair secretary and the 1915, to be raced in 1918 State Fair Futurity. The Prairie View Stock Farm has furnished some of the winners in the great Stinson guaranteed \$500 purse, and with a high-bred son of Peter the Great on Walnut Boy, 2:11 1/4 mares, should be ready and anxious to compete not only with Missouri, but with the world. With the right kind of a State Fair Futurity, Callison should be in shape to win any where, but to get a colt ready to race in any of the big stakes, must cost

more money than to get them ready to race for \$250, the outside winning in the Stinson purse.

Kansas and Oklahoma have a stake that is growing in interest, as it increases in value, and the citizens of those western states seem to appreciate their advantages. Look to see Kansas and Oklahoma colts, in the great Newspaper Stakes, from now on!

Indiana failed in repealing her obnoxious stallion law, although they should clearly it only saddled the stallion owner with taxes that benefitted no one but the veterinary practitioners and the officers of the association. They will not give up, but will continue to work to rid the statute books of a useless and obnoxious discrimination, against a class of citizens, who have enough to contend with, without special unjust and unreasonable taxes, increasing from year to year, without any benefits.

The friends of Baron Will Tell, 2:19 1/4, look to see him the greatest speed sire in that great family of speed sires, the sons of Baron Wilkes, that includes the really great sire, The Bondsman. They contend that 1915 will show up another Baroness Parmeria, from a sister to Early Alice, 2:06 1/4, and that no one need be surprised if both of them enter the 2:10 list in 1915.—L. E. Clement, Pierce City, Mo.

### AMERICA'S OPPORTUNITY IN DRAFT HORSE BREEDING.

America is being drained of horses. Hundreds and thousands are being shipped across the water for use in the war. They are the kind of horses that the farmer can best spare, and the general character of our horse flesh will be elevated by this waste. We shall not get any pure-bred horses from Europe for a good many years



A Mare and Five of Her Colts in Harness—Owned in the Province of Alberta, Canada.

to come. The Belgian horses have disappeared, with the disappearance of Belgium as a nation. There will be no German coach horses offered for sale in America. We doubt if there will be any horses of any kind from anywhere in Europe, except possibly some Percherons from France, and these will all be needed at home. The Percheron country (France) has not as yet been touched so far as we know, but the demand for horses in the French army will clean up the supply.

There is an opportunity now for American breeders to develop the American draft horse: American Belgians, American Shires, American Clydesdales, American Percherons. We have often been quite foolish in buying horses from abroad. We have bought some of the best, the very best; but twenty years ago, and since then to some extent, we did not buy the best. We bought in Scotland what they called the "American" horse. We inquired once in Scotland what was meant by the "American" horse. They very frankly told us that it meant a stallion not good enough for draft purposes at home, but which could be sold to an American.

There seems to be some sort of magic about the word "imported," whether to my lady who buys "imported" silk (made in America), or her husband who buys "French" wines

## Canadian Wheat to Feed the World

The war's fearful devastation of European crops has caused an unusual demand for grain from the American Continent. The people of the world must be fed and there is an unusual demand for Canadian wheat. Canada's invitation to every industrious American is therefore especially attractive. She wants farmers to make money and happy, prosperous homes for themselves while helping her to raise immense wheat crops.

You can get a Homestead of 160 acres FREE and

Other lands can be bought at remarkably low prices. Think of the money you can make with wheat at its present high prices, where for some time it is liable to continue. During many years Canadian wheat fields have averaged 20 bushels to the acre—many yields as high as 45 bushels to the acre. Wonderful crops also of Oats, Barley and Flax.

Mixed farming is fully as profitable an industry as grain raising. The excellent grasses full of nutrition are the only food required either for beef or dairy purposes. Good schools, markets convenient, climate excellent.

Military service is not compulsory in Canada, but there is an extra demand for farm labor to replace the many young men who have volunteered for the war.

The Government this year is urging farmers to put extra acreage into grain. Write for literature and rates to reduced railway rates to Superintendent Immigration, Ottawa, Ottawa, Canada, or

GEO. A. COOK,  
125 W. 9th St., Kansas City, Mo.  
C. J. BROUGHTON,  
112 W. Adams St., Chicago, Ill.  
Canadian Government Agent.

(made in California), or the traveler who buys "old curios," on which the paint is scarcely dry, or in which the "worm-holes" have been made by hand, or the connoisseur who buys "ancient" shawls from Bagdad, which have been rendered ancient by being thrown out into the street, so that the horses could walk over them.

We want to get over that. We can raise just as good horses of the draft type, and far better horses of the roadster type and of the saddler type, than can be grown in any part of the world. We have the soil, the climate and the brains, if we could just get over the magic of that word "imported." It's better of late years than it used to be, good enough to develop draft horses equal to any that we have ever brought from abroad. Let us develop it. We are glad to see that the draft horse breeders are beginning to believe in their ability to produce the best. They will always have a market.

The farm is going to require heavy horses for years to come, because we must plow deeper, must have big horses that can throw weight on the collar. We must not leave it all to the professional breeders or importers. We must learn to imitate the practice of the French and the Belgians. They don't pretend to grow all the horses they sell on their big farms. We never forgot a complaint a lot of Belgian breeders made to us one day when we were visiting a horse show in Belgium and watching King Leopold confer the prizes. They complained that the horses were bought by the French as weanlings, taken to France, and grown there.

The average farmer can grow a fine type of draft horse—high grade, properly mated, and properly cared for. It may not be a pure-bred one, but quite as good as some we have had from abroad. We can grow it cheaper than anybody else, because we have more or less work for the dam. The large farmer can do as they do on the other side. He can buy a sire and work him, making him a far better sire for the working. For the weakness of our draft horse business here has been largely in overfeeding and failing to exercise the sire and develop in him the pulling instinct in the only way by which it can be developed, by actual pulling.

Let us take a leaf out of their notebook. A man with a large farm, who keeps six or eight draft horses, can use mares, and keep one or two extra ones. He can mate them properly and take care of the youngsters, and then sell them to men who are in the business of breeding horses. There is a big future to the draft horse business in America, provided we will simply recognize the opportunity that lies before us, and as wise men, act accordingly. Don't be worried about the gasoline or other engine taking the place of horses on the farm. They may on large farms and level land, but their influence will be negligible. Don't be afraid that the motor truck will take the place of the draft horse in town. It will to some extent; but there will always be room for the big, sound, five or six-year-old draft horse in town.—Wallace's Farmer.

Be sure that your horses and colts are free from worms. A horse afflicted

160 ACRE FARMS IN  
WESTERN CANADA  
FREE

with worms is never thrifty, and feed is only wasted.

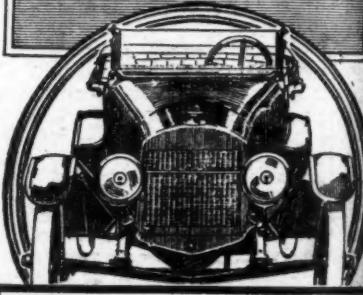
Never let the young colt get thin or constipated. Keep it growing.

The farmer who knows how to raise a good draft colt always has a buyer ready when he wants to sell.

Draft colts do not need so roomy a paddock in which to exercise as the lighter harness and saddle types.

By co-operating with his neighbor the farmer can learn new methods of culture and the interchange of ideas will benefit both.

Yes! It's Free



This \$985 Detroiter  
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YES! We are going to give away this fine big 1915 Model Detroiter Automobile Free. It is fully equipped with top, electric self starter and lights, speedometer, horn, etc., and will be sent to some industrious person Free of Charge. All you will have to do to earn this fine automobile is to take subscriptions to our popular magazine *The Household*. Each subscription will count so many points and if you have the most points June 26th, the automobile is yours free of cost. Isn't that an easy way to get an auto?

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Over Thirty Automobiles

During the past few years we have given away over thirty automobiles, numbers of motorcycles and many other prizes in our popular prize offering. We will send you the names and addresses of these winners and you can write them if you wish. One of our recent contests was won by a little boy at Nolan, Tex., named R. B. Oakley. He is only twelve years old and earned a Studebaker Automobile. You can do as well. Write your name and address on the coupon below and mail it to us today. It won't cost you a cent and we will tell you all about our free offer.

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# CREAM OF THE DAIRY NEWS

## HOW TO RECOGNIZE AND PREVENT MOLD IN BUTTER.

The important losses in butter through the growth of mold upon the tub lining, wrapper, or in the butter itself, which injures the salability of the product, have led the U. S. Department of Agriculture to investigate this subject. Mold in butter is usually found in three forms. 1. Orange-yellow areas with some growth of mycelium under the surface. 2. Smudge or dirty green areas, either entirely inside the butter or with some surface growth. 3. Green-surface colonies, either upon the butter, causing decomposition, or upon the container or wrappings which will injure the appearance of the butter.

Experiments in producing molds artificially in samples of butter indicate that a growth of mold in or about butter is favored by excessive curd, by "leaky" butter or by wet surfaces, wet wrappings or highly moist air. If butter molds readily it is an indication of insufficient salting, as salt up to 2.5 to 3 per cent is sufficient to prevent mold or reduce it to a negligible amount. The growth of molds, moreover, is largely reduced by keeping the



A Grade Holstein of Good Type—The Kind That Fills the Pail.

butter at low temperatures. Improper storage temperatures, accompanied as they frequently are with moist conditions, are favorable to mold in butter. Unsalted butter is more subject to deterioration from micro-organisms than salted butter. Successful storage of such butter is therefore dependent upon scrupulously clean, dry refrigeration. Cellars and ice refrigeration rarely furnish conditions which will prevent mold in unsalted or slightly salted butter, although it may be delayed or reduced. Butter properly made and normally salted (up to 2.5 to 3 per cent, equivalent to the use of a 12 to 15 per cent brine) will not show mold under reasonably careful handling.

Investigators in summarizing their results emphasize the fact that well-washed butter is less subject to mold than that with an excess of curd, but the essential factor in molding seems to be, water, not protein.

"Leaky" butter from which milky water exudes and collects in the wrapper or container furnishes the best conditions for the beginning of mold growth. From these wet areas colonies may spread to the butter itself. Mold, the investigators find, will not grow upon the surface of a piece of butter exposed to air at ordinary humidities. The water in the butter is not sufficiently available to the mold to support the development of a colony unless evaporation is reduced by a high-moisture content of the surrounding air. In closed packages, wet or damp cellars, or carelessly packed masses with cracks or fissures in which moisture collects, mold may seriously injure the appearance of the

packages or actually induce great changes in the butter itself.

Green molds may damage normally salted butter if cracks and open spaces are left by bad packing. Other investigators have found that paraffining the tubs or boxes prevents mold on the container and the liner by preventing the escape of water which would leave the air space necessary for mold growth.

Very moderate salting prevents the appearance of the orange-yellow patches and the smudges. The green molds affect normally salted butter only when it is held under conditions of temperature or moisture that are favorable to mold growth.

## CANNED CHEESE HAS ADVANTAGES OVER ORDINARY CHEESE.

That cheddar-process cheese, if put up in air-tight cans, has certain advantages over cheese handled in the ordinary way, is the conclusion reached by the dairy division of the United States Department of Agriculture, after a series of tests which were continued a number of years. This method, in the opinion of the specialists, seems to meet the needs of handlers who have been trying to devise some individual package for this kind of cheese or a method of handling that would eliminate cutting and waste between the factory and the consumer.

As a result of the experiments it was found that it was commercially practicable to press the cheese in hoops of small diameter, cut it into pieces of desired weight, and seal it in airtight tin cans. This provides a sanitary package which keeps the cheese from exposure to air or contamination, and prevents loss of weight by evaporation. In addition to these advantages there is no rind, which, of course, is always a loss.

The extra cost to the manufacturer, it is estimated, is about 3 cents for labor and cans; a part of this cost, however, is offset by the fact that there is no loss on account of evaporation and rind. Cheese cured in cans has certain points of superiority that, besides its cleanliness, recommend it to many consumers. It is soft enough to spread and when well ripened has a well-developed cheddar flavor. If there are facilities for keeping it cool it should prove to be popular with camping parties and on boats. Also, farmers who live at some distance from stores would find canned cheese to be convenient, as it enables them to lay in a supply that will last and keep for one or two months in cold weather.

When cheese is packed in an airtight can, the formation of a gas that is characteristic in cheese ripening sometimes causes swelling of the can, but this does not necessarily indicate that the contents are unfit for consumption. Cheese handled in this way is as perishable as any other cheese, and should not be allowed to stand in a warm room too long before using; this is a point which should be made clear to consumers, who may think that a cheese put up in this manner will keep indefinitely. The length of time that cheese of this kind can be kept depends very largely on the temperature. The lower the temperature the more the natural fermentation of the cheese is checked. At a temperature of 40 degrees F. canned cheese probably will remain good for several months.

At the present time one of the large cheese factories in Wisconsin, in cooperation with a cheese dealer, is endeavoring to extend its trade in this form of product.

## GRADING CREAM.

The grading of cream is a new thing in many sections, but it is said that the old system of spoiling good cream by mixing it with cream of poor quality will soon be a thing of the past. The foremost reasons for cream grading are that it secures a better quality for the creameries, places an incentive toward the production of good cream by the difference in the price received for the various grades, insures a better product for the consumer and therefore increases the demand for the best products of the dai-

ry at a price which brings a good profit to the producer.

## ADOPT PLAN TO BETTER OUR DAIRY PRODUCTS.

The number of creameries and cheese factories making butter and cheese of high quality is to be materially increased in Wisconsin, as the result of a plan recently adopted. The creamery men and cheese makers of the state will be invited to send samples of their product every other month, to the dairy department of the university, where it will be scored and recommendations made for its improvement.

This will reduce the number of exhibits held each year from twelve to six, and will give the men carrying on the work an opportunity to visit factories making a product that is not up to the highest standard of quality.

More than 7,000 packages of butter and 3,000 samples of cheese from over 700 butter makers and 500 cheese makers have been scored during the seven years which the Wisconsin butter and cheese scoring exhibitions having been carried on. According to the new plan the scoring exhibitions will be held during the first week of May, July, September, November, January, and March.



# ONE MORE CHANCE

These six Everblooming Rose Bushes are from the famous nursery of the American Rose Company, Springfield, Ohio. They are the best variety we could obtain. The plants are perfectly hardy and grow with remarkable vigor and have rich, fresh, green foliage with large, bold flowers of a great variety of beautiful colors and delicious fragrance.

These Rose Bushes will grow in any ordinary garden soil, and you will have an abundance of beautiful flowers from these bushes. Printed instructions on planting and care of rose bushes will be sent with these rose bushes. We guarantee them to reach you in good growing condition.

## A Garden of Beautiful Roses

**ROBIN HOOD**—A grand grower, producing strong heavy canes and is not subject to disease or insect attacks. Blooms with the first days of spring continuously throughout the growing season.

The flowers are of a glorious rose-scarlet, while the fragrance is delicious beyond description.

**BESSIE BROWN**—A vigorous grower, producing elegantly finished flowers of creamy white exquisitely flushed pink, very large shell-shaped petals making the bloom delightfully charming.

**MELODY**—(A Yellow Beauty)—The greatest of all yellow roses for the home planter. Grows to perfection in ordinary garden soil in all localities and bears continuously great numbers of lovely flowers of immense size of a lovely shade of yellow, deepening to apricot in the center.

**RADIANCE**—The ideal garden rose, strong and vigorous in growth. The splendid flowers borne on strong, upright stems are produced in amazing profusion; immense in size, and a beautiful blending of shades of carmine rose with opal and coppery reflections.

**KAISERIN AUGUSTA VICTORIA**—Hailed by flower lovers as the greatest rose creation of modern times. A tremendous grower and blooms continuously, producing immense, deep double grandly formed flowers. It is practically impossible to describe the delicate tints of rich, creamy white; slightly lemon tinted near the center.

**RED DOROTHY PERKINS**—An ornamental climber which is nearly evergreen and its graceful pendulous habit will place it first among pillar roses. Bloom is produced in great clusters; each individual rose being perfect in form and very double, the color being deep intense scarlet crimson.

## You Can't Afford To Pass This By

These six Everblooming Rose Bushes are not for sale, but we give the entire collection absolutely free, provided you will send us 25 cents for a three months' extension on your subscription to Colman's Rural World, and 5c extra to help pay mailing and packing charges—total 30c. There is no better time to renew your own subscription three months than now. This offer is good for new or old subscribers. Send 30c in stamps or money order, and mention that you want your subscription marked ahead three months and the six Rose Bushes and this collection will be sent you in time for planting this spring. Address,

**COLMAN'S RURAL WORLD, ST. LOUIS, MO.**

**NOTICE**—If you want 12 Rose Bushes and a 3 months' extension send 50c

# MANY VALUABLE PRESENTS FREE

In the next three months we want to give away \$10,000 worth of useful and valuable presents to advertise the People's Supply Company. We want at least one person in every town to have one or more of these splendid presents, and we want the good friends and readers of Colman's Rural World to be the first to have their choice. These presents consist of Watches, Rings, Fountain Pens, Lockets, Cameras, Suits, etc. Look over the list and carefully read the description of each and see what you prefer. We only have room to show you a few of the many presents you may select from.

Our offer makes it so easy to get one or more of these useful presents that every boy or girl, man or woman reader of Colman's Rural World should sign the coupon below. All we want you to do is distribute 20 of our swell Art and Religious pictures amongst your friends and neighbors at 10 cents each. These beautiful pictures are 12x16 inches in size, and lithographed in many beautiful colors. Nearly everybody you show these pictures to will thank you for the opportunity of getting one or more at 10 cents each. As soon as you have distributed the 20 pictures, send us the \$2.00 you will have collected and we will send you your choice of any one of the presents you select from our big list of premiums.



BRACELET  
AND  
RING  
FREE

Don't send any money. Just fill out the coupon below and mail it to us, and we will send you, by mail, all charges prepaid, the 20 beautiful pictures.

You run no risk as we take back any you do not sell, and send you a present for what you have sold. Fill out the coupon below and mail it today. The coupon starts everything.

## BRACELET AND RING

Adjustable to any size wrist and gold plated throughout, and the fancy engraved links alternating with plain polished ones produce a very pleasing effect. Ornamented with elaborate, fine cut, sparkling ruby stone, set in richly chased border. Three-stone gold plated ring given with each bracelet.

**People's Supply Co.,**  
St. Louis, Mo.

## NOTICE!

We give you an extra gift of 40 Beautiful Post Cards; no two alike, for being prompt. Our plan is full of pleasant surprises.

## PEARL FOUNTAIN PEN



The barrel is a genuine guaranteed hard rubber; cap is of the same material. The barrel is inlaid with mother of pearl decorations and you can see the beautiful design from the illustration. The inlaid work is held in place by two fancy gold plate bands; pen point is guaranteed 14K solid gold, and in every respect this fountain pen is first class.

## Camera Outfit



This Camera outfit includes camera with automatic shutter, plates, developing tins, developer and fixer and full instructions. Will take clear and sharp pictures. Covered with moroccoette.

## Vanity Case

Made of rich German Silver which has an extra finish, and is decorated with fancy flower border. This case has a mirror of good quality, and powder puff compartment and places for quarters, dimes and nickels, also a strong catch that will hold cards and bills. Attached to this Vanity Case is a ten-inch chain. Size of case is 3 1/2 x 2 1/2.



## BOYS! GET THIS RIFLE FREE!



### Will Shoot 350 Times

**AUTOMATIC REPEATER**  
Works Like a WINCHESTER

all kinds of small game, such as squirrels, rabbits, etc. Barrel and all working parts made of high-grade steel, handsomely nickel plated; stock of finely-polished black walnut. This splendid rifle is just what you need for target practice. No powder—no danger—yet it will shoot almost as hard and as far as a regular .22 caliber cartridge rifle. It is the safest and most powerful air rifle ever invented.

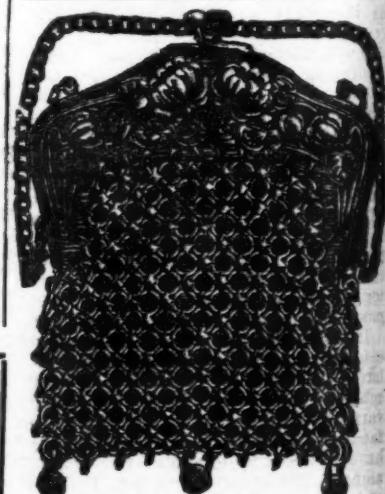
## Handbag

Made of seal grain with gusseted ends, welted, heavy cloth lining, fitted with pockets for mirror, bottle, coin purse, etc. Bag measures 10 1/4 x 3 1/4 inches and is fitted with fancy French gray silver finished frame, has a double strap handle.



## CASH COMMISSION

Many of our agents prefer to sell our goods for a cash commission instead of a premium. We allow 40 per cent commission to agents who desire the money instead of the premium. In other words, you keep 80 cents out of every two dollars' worth of goods you sell, and send us the remaining \$1.20. If you find you cannot sell all our goods you will be entitled to a commission on the full amount you do sell.



## Mesh Bag

Made of German silver, beautiful oxidized frame, prettily embossed with a handsome floral design. The size of the bag is 3 1/2 x 2 1/2, which makes it neither bulky or too small. Attached to it is a ten-inch chain.

## SEND NO MONEY—JUST YOUR NAME.

People's Supply Co.,

St. Louis, Mo.

Gentlemen:—Send me 20 of your high-grade art and religious pictures, which I promise to try and sell for one of your presents. I promise to return all pictures I cannot sell. (R. W.)

Name .....

R. F. D. .... Box ..... Street .....

Post Office ..... State .....

Ladies'  
or  
Gentle-  
men's  
Watch



A picture (reverse side  
reproduced) of our Amer-  
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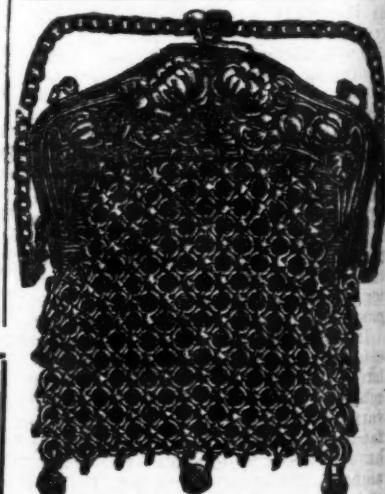
American Model, stem-wind and stem set, suitable for a lady, gentleman, boy or girl. Case is embossed with a beautiful and chaste design, and presents a rich and elegant appearance. Attractive easy reading dial, with hour, minute and second hands, and is dust proof.

Gold Filled  
Ring  
Set With  
Three  
Brilliant  
Stones



## Locket, Chain and Ring

Hand engraved. Crescent design set with eight extra quality brilliant white stones. Locket is suspended from a 22-inch chain, and will hold two pictures. With each locket and chain we also will give an extra gift of one gold-filled ring set with 3 brilliants.



## Mesh Bag

Made of German silver, beautiful oxidized frame, prettily embossed with a handsome floral design. The size of the bag is 3 1/2 x 2 1/2, which makes it neither bulky or too small. Attached to it is a ten-inch chain.

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# THE HOME CIRCLE

## AND THE KITCHEN

### SPRING.

We welcome thee, sweet joyful Spring!  
And leaves and grass and murmuring brooks,  
All welcome your beginning.  
Ev'n skies around return your smiles,  
And the sun grows daily warmer  
As he comes to see us day by day  
And stays a little longer.

The birds return from southern climes

Where they have spent the winter,  
And warble notes of sweetest songs  
While in the trees they twitter.  
When Spring is fairly ushered in,  
The butterfly will hover,  
And buds of many a bush will bloom,  
While fields are red with clover.

St. Louis ALBERT E. VASSAR.

### A FIXED ROUTINE MAY BE BEST, AND MAYBE NOT.

To the Home Circle:—I had a chance the other day to take a little trip that would have made it possible for me to see a friend that I really like in spite of our differences in ideas on some points, but remembered it was her regular wash day, and being a slave to routine, she would not change her weekly program for anything but death. At her house, every day has its appointed task, and no one thinks of setting aside the household rules.

Now, I like a certain amount of system and like to have a fairly regular routine, but I must have a little "leeway" so that neither the family nor I shall have to be deprived of some little diversion on account of the work, when opportunity for this diversion may not occur again, and I am wondering if my way or the other is best.

I have lived in homes where fixed laws governed the movements of each and every one of the family and where one day of the week was sacred to one kind of work, another day to another, till Sunday was reached and the rules for that day were, if anything, the most rigid of all, but I could not see where there was any benefit, as far as the work accomplished was concerned.

I will not wash on Monday if it is raining or if some one needs my care at home, or if a neighbor is sick and a little help is urgent or if there are other reasons equally as good for postponement; but on the other hand, I will not let the ironing stand and "smooth over" a piece or two as needed; neither will I let the mending go so that buttons must be put on with the garment in wearing or a stitch taken here and there to hold parts together while the wearer pauses a minute while I attend to the job.

It is the same through the whole category of household duties. We have a time for everything, but the schedule will admit of reasonable variations, and I am sure the whole family is the happier for it, for we have a little enjoyment as we go along. The present is all we have and we make the most of it, for we cannot lay up money to spend for great pleasures in the future, and maybe we will not be able to enjoy them any way.

A dear old grandmother once quoted the following lines from a poem, and its lesson will admit of application by all:

"We only half begin to live  
Before we're doomed to die.  
Were I to live my life again,  
I'd mark each separate day  
And never let a single one  
Pass unenjoyed away."

—Cena S. Cornman, Missouri.

### STRANGERS AND THE CHURCH.

To the Home Circle:—We have just read the article in the Rural World about new neighbors, and appreciate it as we recently moved into a new community. We were fortunate in moving to a community where most of the people at one time have

**The Home Circle** is a meeting place for weekly gatherings of the Rural World family. All of its members are invited to meet here in correspondence and good fellowship. Send lots of letters and get really acquainted.

**The Kitchen** is a factor in the Home Circle that no one can do without. Help to make it helpful, by sending for publication suggestions on how to make and do the things that are made and done in the kitchen. Tell others your ideas and experiences.

been strangers themselves, which made them more sociable, for they know how to sympathize with strangers. Several families have already visited us. However, most of them are neighbors that we met at church and insisted on their visiting us.

Strangers should attend the church of the community, for, as a rule, a majority of the good people of a community attend Sunday school and church. It is a mistake for strangers to wait to be invited to attend church. We know from experience that many Christians are not as considerate of strangers as they should be, but let us all take a lesson, and when we see strangers at church make them feel welcome.—Peter Manlanay, Missouri.

### A THRIFTY MAN'S METHODS WORTH STUDYING.

To the Home Circle:—When I see a man winning success out of the most adverse circumstances, I always like to get down to the bottom of the facts. Farmer D. is one of them. His boyhood was poverty pinched. He had no education to speak of, but had common sense, grit, and energy. His start was working, wet and dry, at \$7 a month. By strict economy he saved more than half of his wages, until he had \$300 saved, then he bought two mare colts, from which he realized a good profit.

His next venture was a woman, and a run-down farm. Sheep, hogs, cattle and horses, given good care, not only paid for his home but gave him a profit. He saved every bit of fertility and every fall he burned a lime kiln, selling sufficient lime to his less energetic neighbors to pay the kiln expenses. His soil is rich; clover grows waist high on what used to be red hillsides.

His method of making red knolls productive is to dynamite them until thoroughly broken up, then cover with coarse litter, fine-manure and lime on top, and then a coating of clover hulls and chaff. In two years' time there is a good soil catcher matter over the one-time bare knolls.

His orchard contains every variety of peaches, apples, pears, cherries, plums, etc. His garden is of good size, well fenced and a small berry lot keeps the family supplied with strawberries, raspberries, gooseberries, currants and blackberries.

His children find employment as well as capital for their labor, at home. His wife, with all material at hand, sets a good table and has a bank account of her own from the surplus chicken, turkey and duck money.

There is always work to do, and how much better than to sit around and curse the hard times that idleness and indolence bring along.—Mrs. D. B. Phillips, Tennessee.

### LITTLE THINGS IN TEXAS DOINGS

To the Home Circle:—The sunny warm days of the past week have changed the appearance of the landscape wonderfully. The forest trees are budding fast while orchards are one huge bouquet. After two weeks' freezing weather, the middle weeks of March, we are surprised to see gardens still green and growing. Peaches are seemingly unharmed.

Corn is planted, except low, wet ground. Milo maize will be planted this week. My boss has his land nearly all broken for cotton (March 31). We had a long wet spell of weather. It rained nearly all through January and February. The ground is

badly packed, making the spring plowing so hard on teams.

We have hired a hand to do the farm work as husband has been fencing a 40-acre tract of wood-land recently purchased. We are intending to use this new place for a pasture and it insures us plenty of good hickory, ash, elm and oak wood; besides, if we ever desire to cultivate it the soil is virgin and rich. When one has a pasture, often he may see a barn gain in calves or mule colts, and by keeping such stock awhile may sell at a profit.

Some one said, "Chickens." We have a lot now four weeks old, nearly feathered, about 130 in all. The early chickens are the most profitable. We get eggs from our Buff Orpingtons every day. Their feed is milo maze, corn and wheat bran, a combination unbeatable where wild clover and pepper grass covers the yards to furnish green feed.

Young calves are making their appearance every day now and the foals gambol by the dams' sides. We sold our mares and now work mules. We have a jennet that raises good colts. Her last year's jack colt is taller than my Shetland buggy pony.

Farmers are busy and happy. They are like a rubber ball—stand many hard blows yet ever ready to rebound.—"Early Alice," Texas.

### TRANQUILITY OF MIND—MAKING THE MOST OF LIFE.

To the Home Circle:—It is necessary above all other things to cultivate tranquility of mind; to exercise our wills in regard to this, for the will counts for something. In proportion as we are not contented with our sphere, or satisfied with ourselves, a well-disciplined mind will reach out longingly for a better and worthier course of life.

Finding how short lived is everything terrestrial, we must learn to make the most of every hour. We should acquire the habit of adapting ourselves to the fluctuating conditions in which we are placed, and instead of being sad and desponding we should compel even untoward circumstances to minister to our enjoyment.

Silent sorrow—grief that is deeper and more lasting than any death ever brings, broken hopes, blighted lives, and perpetual sadness, are covered by the smiling mask of habit and education. One idol after another is shattered, but the well-disciplined mind recovers its balance; the carefully trained hands remember their cunning, and, with no outward sign of inward desolation the spirit gathers up the remnant of life and goes on as before.

A strong will, to secure tranquility, accepts things as they are and does not worry about the past, which has gone, nor tomorrow, which has not come, but takes the present day and makes the best of it. If we persist in peering into the future and sighing over the past, this blessed today, which is all we can be sure of, we never have. Much of the happiness of life is lost by sacrificing substance for the shadow.—H. Mortimer, Illinois.

### LENTIL CROQUETTES.

Soak half cup lentils or, if desired, split peas, over night. Cook with one stalk of celery until soft, or about two hours. Drain and press through a sieve. Add one cup stale crumbs, one egg, three-fourths tablespoon melted butter, a few drops onion juice, and salt and pepper. Cool and shape into croquettes. Roll in crumbs, then in egg, then in crumbs, and fry in deep fat.

Instead of peeling potatoes for steaming or boiling, simply cut a narrow strip entirely round the center of each one. After being cooked, drained, and dried, in the ordinary way, the potatoes slip easily from the skins when the opposite ends are pressed between the thumb and forefinger.

### "STACK ARMS."

Was it a whisper that I heard?  
Was it a dream, or song of bird,  
That all my pulses thrill'd and stirred,  
As sounding through war's dread alarms,

There came this call—  
"Stack arms! Stack arms!"

If kings and potentates must fight,  
Each thinking only self is right—  
Why, let them kill or maim each other—  
You have no quarrel with your brother.  
Why seek to do the thing that harms?  
Hear, heed the call—  
"Stack arms! Stack arms!"

What quarrel have you with your brother?  
Why should you maim or kill each other?  
The call I hear through wars alarms—  
Is "Soldiers all—  
Stack arms! Stack arms!"  
Missouri. —MAY MYRTLE.

### REMEDIES FOR CONTROLLING THE HOUSEFLY.

In addition to screening houses as a method of control for house flies, various preparations may be compounded at home.

#### Fly-tangle.

A sticky fly-paper which will almost take the place of tangle-foot, may be made by melting  $\frac{1}{2}$  pound of resin and adding enough olive, castor, or lard oil to give it the consistency of molasses. With a brush spread this mixture on small sheets of wrapping paper, leaving about one inch margin all around. Place two sheets with the sticky sides together and when desired for use pull them apart. This acts as tanglefoot and may be used to destroy other insects.

#### Poison Fly-paper.

A very convenient poisoned fly-paper which acts as "dead shot" may be made as follows:

6 drams of chloride of cobalt.  
2 ounces brown sugar.  
1 pint boiling water.

When the chemicals are all dissolved, saturate a blotting paper in the solution and allow it to dry. When necessary to use, place small pieces of this paper in saucers with water. The stock solution may be kept in a bottle and used by mixing a little of it with water. The bottle should be labeled "poison."

#### Formadleyde.

An easy prepared poison for flies can be made by adding a little vinegar or milk to a two-per cent solution of formaldehyde. This should be placed in flat dishes in various parts of the room.

#### Laudanum Mixture.

Another poisonous mixture is made as follows:

1 teaspoonful laudanum.  
 $\frac{1}{2}$  teaspoonful brown sugar.  
2 teaspoonfuls of water.

Use in the same manner as formaldehyde or poisoned paper.

The last three are very dangerous and should be kept away from children and animals.

The necessary articles for any of the above may be purchased in any drug store at a reasonable price.—C. R. Jones, Colorado Agricultural College.

### HOUSEHOLD HINTS.

Vinegar placed in a bottle of dried up glue will moisten and make it liquid again.

Before using tinware of any kind, rub it well over with fresh lard. If treated in this way it will never rust.

When boiling eggs, wet the shells thoroughly in cold water before dropping in the boiling water and they will not crack.

To remove a fish bone from the throat, swallow a raw egg, and follow, if possible, by eating plenty of mashed potatoes. The egg will carry the bone into the stomach, and the potatoes will prevent it from doing any injury there.

Grass stains may be removed from white clothes by first of all rubbing the soiled parts carefully with a little fresh lard before washing in the usual way. After being treated in this manner the stains will have entirely disappeared.

### An Appreciation of Sparrows and Other Birds

To the Home Circle:—Come to think, their voices are not unusual, and they have pretty enough little bodies; they are birds after all, and it is pleasant to be awakened at the peep o'day when they roll out of their self-constructed couches, in the chimney ledges and cornices of the dear old house in which I am dwelling.

It is the English sparrow and his name is legion. Wherever he dwells in the city of St. Louis, it is my impression he is most at home near the Mississippi, the business district, and close to the commission business quarter. Between the deposits of grain, etc., on the levee, the leavings of oats, etc., of horses' dinners here and there, and the profuse garbage heaps outside of vegetable and poultry marts, the little rascals keep in splendid condition. They toil not, neither do they spin, excepting the construction of hideous nests, yet they fly high and have no cares for the morrow. One might envy their merry round of life only it is lacking in song and foliage.

The renegade sparrow seems to have forsaken the tents of his sires; he cares not for trees, laburnum or lilac lanes, rhododendron and hawthorn, he has forsaken. To him, the forest is a snare and delusion; he had sold his birthright for a mess of pottage and now revels amid the flesh pots of Egypt.

I could say more about the wretch, but he is the only bird in my environment and when he flutters his wings against the shutter and chirps, calling me out of dreamland, I throw the mantle of charity over and about him, and remember that degraded and despised though he be, a bird's a bird for a' that.

The sparrow is a pariah; is grudged the few drops of water, the little food he uses; the lodgement of chimneys the casements are begrimed, too, but the great unsleeping, unwearying love that marshals the planets and controls the destinies of nations, is cognizant of the outcast bird and looks on him with divine compassion and divine affection.

It naturally follows that such a tree lover as I happen to be, is also a bird lover—yes, a most intense lover, yet never have I had a bird that might be called my own. When I was a child, a book or a bird was a promise that never failed to bribe.

Nearly all the false promises ever given me, concerned a canary. Had I just now all the canaries that were to be raised especially for me, they would be the nucleus of a bird store.

I have been a love pirate along this line, wooing and winning the affections of caged songsters belonging to others. How much Joseph was beloved—Joseph who would awaken long after he had retired, (to an unsteady bed in the swing of his cage) and send forth a little chirp, if I came into the room, and spoke.

Joseph belonged to a literary friend; and he died while she was engaged on the "Imboden Mills." It was another young life crushed out by a factory. I had fled from the sound of masonry and machinery as she constructed the "Mills" although I had been present when ground was broken for the foundation. And as she fired the boilers and set the looms in motion, Joseph's drinking vessel and his seed dish were empty, and he gave up his cheerful little life.

He perished of neglect—the birdling to which I had been wont to give tender little lettuce leaves, lumps of sugar and luscious berries; often have I seen his golden breast crimson with the heart tide of a huge strawberry.

It came to me once to hear a whippoorwill—yes, once only. I was a very young girl and was visiting away from home; as we strolled along after dark, a bird call rang out sweet and clear, and my companion said: "A whippoorwill; the first one I have heard this season." May 10, 1887—the date has not been forgotten.

Juliet considered herself unhappy, yet every night in a promgranate tree close to her balcony a nightingale sang. Eugenie de Guerin's Journal

teems with mention of the nightingale, and larks and linnet pour forth melody which thrush and blackbird seek to surpass—but not for me.

I have seen red birds and blue birds—simply seen them. Friends, I am a pauper truly; tree and bee and butterfly and bird—who could count all that are in the world today and for me—deprivation—heart hungry, yearning unpeased, affection unrequited. If you ever wondered whether one was robbed of a birthright—never came into their own—remember me.—Mrs. M. H. Menaugh, St. Louis.

### BAKING AND CARE OF BREAD.

That many housekeepers fail in the baking of their bread and in the care after baking, is the observation of Miss Oberlin of the Colorado State Agricultural College. Slack-baked bread is unwholesome and indigestible on account of the uncooked starch and the living yeast plants. Not less than forty-five minutes should be allowed for baking even a small loaf.

If the oven is too hot, the outside of the loaf will harden quickly and the gas in the center will lift up the crust, leaving large holes beneath it. This will cause the top crust to break off when the loaf is cut.

To test the oven place one teaspoon of flour on a pie pan in the oven. If it turns a golden brown in five minutes the temperature is right. No test, however, can be a substitute for experience.

Allow the air to circulate around the loaves while cooling. Do not wrap hot bread in clothes, for two reasons; it is likely to taste of the cloth, and the steam shut up in the loaf makes it damp and likely to mold. When perfectly cold, bread may be stored in stone jars or tin boxes that have been thoroughly scalded and aired. Loaves may be wrapped in clean paper or slipped into paper bags, but it is better not to wrap even cold bread in cloths. Never put a fresh baking into a receptacle with stale bread.

### ADULTERATED SOAPS.

Soap is one of the most extensively adulterated commodities we have. One evidence of adulteration that is frequently brought to the attention of the consumer is the worthless character of some of the so-called "glycerine" or transparent soaps. "In making most such soaps," says Prof. Vail, of the Colorado Agricultural College, "cane sugar is put in, to take the place of glycerine, mainly because sugar is ordinarily cheaper than glycerine. The amount of sugar added is sometimes so great as to make the final product worthless. Such a soap looks all right, but it will not lather, and besides has an irritating effect on a sensitive skin. These soaps are made to sell. They may have a good appearance, a pleasing odor, and be offered at an attractive price, but if one does not wish to be 'sold,' it is better to choose a soap of known worth. The soaps loaded to excess with sugar are usually unfamiliar and unadvertised brands, while a good soap must necessarily be true to its label."

### PURCHASING SHOES.

"While individual comfort must be the determining factor in purchasing shoes, yet there are a few general rules of some aid in securing that comfort," thinks Miss Annabell Turner, instructor in home economics, University of Wisconsin.

"The natural lines of the foot are graceful and beautiful, and this natural shape should not be lost sight of in selecting shoes. The large toe is usually longer than the other, and instead of running straight ahead, as in the so-called 'anatomical' shoes, slopes slightly. The shoe should therefore be somewhat pointed, slanting from both sides toward the center, with the inner slant very slight.

"Time spent in the shop securing a perfect fit on shoes is time well spent, for discomfort always means lowered efficiency and a degree of nervous strain. Laced shoes can be more readily adjusted and so are often preferred to the buttoned style. If the buttons are properly placed when the shoe is purchased however, or after it

has been worn a few days, buttoned shoes may be very satisfactory for the normal individual.

"The close-fitting, extremely pointed shoes with the absurd French heels can not be too strongly condemned. Very high heels are especially harmful to the young, as they throw the body out of correct position and hinder its proper development. The matter of wearing low shoes in cold weather should be noted, too. It is important that the feet be kept warm and dry, as chilled feet are frequently responsible for numerous ills.

"Experience with a large variety of materials has shown leather to be the best for all-around use. It is tough, flexible, porous, reasonably waterproof, and permits a moderate degree of ventilation. It is not ideal, be-

cause it retains heat and perspiration to an undesirable degree, has an unpleasant odor, and cannot be kept clean, to say nothing of sterile. The same pair of shoes should not be worn constantly. Have two pairs of shoes for ordinary wear and change frequently."

### OPPORTUNITIES.

Where nothing's ventured, nothing's gained—

Then you should try.  
That the man is blamed who never aimed,

You can't deny.

Then don't you be too fond of play  
And let your chances slip away—  
"Twould bring you to remorse some day  
To pass them by.  
St. Louis ALBERT E. VASSAR.

## FREE SILVERWARE

We have just received a fresh shipment of these beautiful 26-piece Electric Silver Sets from the factory. They won't last long. Send for your set today. We refund your money if you are not satisfied.

### 26-Piece Electric Silver Set



### We Want You to Have a Set of This Silverware

We have in the past made many fine premium offers of silverware to readers of Colman's Rural World, but this is the first time we have ever been able to offer a complete electric Silver Set on such a liberal offer. And please don't think because we are giving away this splendid set on such liberal terms that it is the ordinary cheap silverware which is plated on a brass base and consequently changes color and has that "brassy" look just as soon as the plating wears off. This set which we offer you here is plated on a white metal base, therefore each and every piece is the same color all the way through and will wear for years. As shown in the above illustration there are 26 pieces in this set—Knives, 6 Forks, 6 Teaspoons, 6 Tablespoons, Sugar Shell and Butter Knife. Each piece is full regulation size for family use, the handles are handsomely embossed and decorated with the beautiful Daisy design which is now so popular and the blades of the knives and bowls of the teaspoons and tablespoons are perfectly plain and bright polished.

It is only because we buy this set in large quantities direct from the factory that we are able to secure it at a price that enables us to make the remarkable offer below. It is by far the greatest value we have ever offered. We will send this beautiful 26-Piece Electric Silver Set exactly as illustrated and described to any address upon the terms of the following special offer.

We have sent hundreds of these 26-Piece Electric Silver Sets to our readers and in every case the subscriber has been delighted beyond measure. We are so sure that this 26-Piece Electric Silver Set will please and satisfy you that we make this offer—and if you are dissatisfied after you get the 26-Piece Electric Silver Set we will refund your money, or send you another set. You know we couldn't make such an offer unless this 26-Piece is exactly as we represent it.

### How To Get This 26-Piece Silver Set Free

Send us a one year's new or renewal subscription to Colman's Rural World at our special price of \$1.00 and 25 cents extra to help pay postage and packing charges on the 26-piece Electric Silver-Set—total \$1.25, and the complete 26-Piece Silver Set will be sent you by return mail—all charges paid. If you cannot get a new subscription to Colman's Rural World just send us \$1.25 and we will add a one year's subscription to your own subscription to Colman's Rural World. This offer may not appear again. Remember, for \$1.25 you get Colman's Rural World one year, and in addition we send you the 26-Piece Electric Silver Set—all charges prepaid. Sign the coupon below today before this offer is withdrawn.

### Sign This Coupon Today

Colman's Rural World,  
St. Louis, Mo.

Enclosed find \$1.25 to pay for a one year's subscription to Colman's Rural World. It is understood that you are to send me the 26-Piece Electric Silver Set—all charges to be prepaid. If I find the 26-Piece Electric Silver Set is not better than you claim, I will return it to you, and you are to send me back my money.

Name .....

P. O. .... State ..... R. F. D. ....

In ordering  
just measure  
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XUM



## Mollie Darling

By Vaughan Kester

(Copyright, 1915. The Bobbs-Merrill Co.)

(Continued from last week.)

FTER supper he cornered quiet Mr. Brown in the office. That gentleman's bad eye had attracted his attention, and he seized the first opportunity to ask Brown how he came by that scar, thus artfully framing a question that covered the eye as well.

"Knife slipped while I was picking my teeth," said Brown, regarding him malevolently.

"Say, I thought you might have bit yourself accidental," responded Mr. Brown.

In the kitchen Johnny was talking earnestly with Mollie, as they washed and dried the supper dishes.

"Don't you have nothing to do with that fellow, Mollie?"

"Why, Johnny?"

"Well, mainly because he's no good. He's the rankest proposition I even stacked up against, and I've seen 'em as rank as they make 'em."

Mollie puckered her brows thoughtfully. She was fond of Johnny and they were engaged, but all the same she had the very human quality of disliking orders, and Johnny's voice smacked of command.

"I thought he was entertaining, and that he had nice table manners," she said.

"Well, I didn't notice 'em if he had. I hate these smart geezers!"

"He was awful polite, Johnny." She wished Johnny to be fair to the stranger; at the same time she felt affronted by his foolish jealousy.

"Fresh," said Johnny, "if you call that being polite."

No more was said then, but somehow when they walked up the trail there was this between them, and they walked farther apart than usual. They were silent, too, a good deal of the time. Moreover it was a short walk; but before they reached the hotel Johnny had returned to the vexed subject of Mr. Bunny and the treatment Mollie was to accord him.

"Mollie, you are not going to talk to that fellow any more, are you?"

"Certainly I shall talk to him. I am not going to be impolite just because you are," rejoined Mollie, with a little toss of her head.

Johnny flushed hotly, then the color faded from his face.

"All right then, if you'd rather talk to him than me, you can, but I won't be here to listen to it—I can tell you that!"

They had reached the door by this time, and Mollie, holding her chin very high, said coldly:

"Good night, Mr. Severance, I think I must go in. Thank you for your company."

Johnny gasped, then he said politely:

"Good night, Miss Ferguson," and turned away, while Mollie went up to her room with burning cheeks and smarting eyes.

But it was not until she was safe in bed that she shed a few surreptitious tears.

"He might have known . . . that I care more for his little finger—than for all the Mr. Bunnys in the world!" she whispered tremulously to herself under cover of the friendly darkness.

Mr. Bunny, for reasons of his own, remained in Sunset. He discovered that M. Ferguson desired to introduce water on her premises. She designed to have flowers, a kitchen garden and grass. This involved a half-mile of ditch. He let it be known that for a proper consideration he might be induced to betake himself to ditching, though he also let it be known that this was a pursuit he should never look back upon with any feeling even remotely approaching pride. He further gave M. Ferguson to understand that he had recently lifted a mortgage on his widowed mother's quarter-section back in Nebraska. This had taken his last cent. He drove

a much better bargain in consequence, did artless Mr. Bunny.

To Johnny he had already explained that he had impoverished himself in Albuquerque; his attentions to a handsome blonde having been the immediate cause of his financial undoing. Later she had proved unworthy of his generosity. He was hitting the high places now mainly because of the throw-down she had given him. He indicated that this throw-down had been cruel and perfidious beyond words. Brown had heard the same story from Mr. Bunny's own authentic lips, but in his case Mr. Bunny had added:

"Say, I put my coin on the black. You watch me make my next play on the red. That ought to fetch a change of luck."

Then one morning Johnny's song failed to rouse Mr. Brown, but its very absence at the accustomed hour brought him wide awake. He heard Johnny's step on the path, and looking from his window saw Johnny go by, his curly head bowed and his shoulders rounded.

Mr. Brown sat in his cabin door and considered the situation over his morning pipe. Subsequently he sought out Mr. Bunny, peacefully ditching, gun on hip. Not that Mr. Bunny was actually ditching; truth compels the statement that he was seated on a flat rock with his spade within easy reach. Mr. Brown addressed the ditcher:

"Ain't you finding this a mighty sedentary job?" he asked.

"Shucks! I've made big money in my time,—ten a day in the Klondike tending bar—"

"What you getting here?"

"A dollar fifty, and my board," said Mr. Bunny sheepishly.

"Why, she's doing you—ain't she?" cried Brown. "Robbing you right along! No wonder you're warming them rocks. A dollar fifty to a high-priced man like you hardly pays for the trouble of drawing your wages!"

Mr. Bunny looked off, got up, dug, his spade disconsolately into the bank, threw a couple of shovelfuls from him with disdain; and sat down once more. Brown regarded him earnestly.

"And your mother back in Nebraska on that quarter-section, like I heard you tellin' Miss Ferguson at supper last night, looking anxious to you to remit . . . and that handsome blonde down in Albuquerque that cost you such a pot of money . . . Say, Mr. Bunny, you got to do some mighty close figurin', ain't you, to make both ends meet?"

"Just between ourselves, Brown, you can cut out the mother,—but I was giving it to you straight about the other."

"Well, I see you got all the feelings of a high-priced man; it naturally fusses you to think how Miss Ferguson's taken advantage of you. Dollar fifty,—why, that ain't whisky money for an ambitious fellow like you."

"You're right, it ain't," said Mr. Bunny, shaking his head ominously. "I'm going to pull out of here soon. Say, Brown,—" he continued confidentially, "I could take her away from him—" and he nodded in the direction of the Mountain House. Mr. Brown understood he was referring to Mollie now. "Just as easy as nothing. All I got to do is just to crook my finger at her,—see?" said Mr. Bunny.

"But pshaw! I don't marry. They none of 'em ketch me. I'll have my fun with a fair-looker, spend my money on her, but there ain't an ounce of matrimony in my system." And into Brown's ears he poured a tale of triumphant sin, giving Mr. Brown to understand that he, Bunny, was a bee among the flowers.

Brown was viewing the gun on Bunny's manly hip with a wistful eye. It had been years since he had renounced such vanities. Bunny leaned over to pick up a stone.

"Say,—what in blazes you up to?" he cried, for Brown had deftly slipped the gun from its holster. He fell back a step and gave Bunny the benefit of his good eye. Mr. Bunny was instantly conscious of a cold feeling at the pit of his stomach. "Say, you give me back my gun!" And he began to bluster.

"Forget it!" said Mr. Brown softly. "If a man took that trail and kept moving, he'd be in Alvarado by tomorrow night—"

"Give me back my gun, Mr. Brown—"

"I never did believe in these here private irrigation projects," said Brown. "And I don't believe you're the man to put this one through." He drew back the hammer of the gun.

"Say—it's loaded, Mr. Brown—"

"Of course it's loaded. I wouldn't insult you by thinking you packed an empty gun. You keep moving at a reasonable rate of speed and you can be counting the lamp-posts in Alvarado tomorrow night—seven on Main street, and four on Prairie avenue. You're wasting your time here. . . . No,—you don't need to go down to the Mountain House—you can start here!"

"Say, she's owing me money, Mr. Brown. A man wants what he's earned, don't he?" said Bunny meekly, but disposed to raise an issue.

"Of course he does,—but he don't want what he ain't earned." Brown looked at him with weary pétulance. "Ain't you open to a hunch?" The muzzle of the gun menaced Bunny, who fell back a step in consternation, ducked, turned and fled shamelessly.

(Continued Next Week.)

### CORRECT.

Papa (concealing something in his hand)—Willie, can you tell me what it is with heads on one side and tails on the other?

Willie (triumphantly)—Oh, I know! It's a rooster on a fence!—Judge.

### SAVING THE POOR HORSE.

At the railway station a nice old lady left the train and got into a cab. The cabman said, "Gimme your bag, lady, I'll put it on top o' the cab."

"No, indeed!" answered the dear old lady, "that poor hoss has enough to pull. I'll just hol' it on my lap."

## Poultry Raising for Fun & Profit

BREEDING AND RAISING INDIAN RUNNER DUCKS.

Clean, comfortable quarters, with a liberal supply of the proper food, fresh water and grit, are the essentials to success with Indian Runner ducks. Give as much food as they will eat up clean, no more.

There is a larger supply of eggs if the ducks are kept penned during the winter. Snow, ice and wintry winds are not productive of eggs. A Runner well housed and fed will lay eggs during the most severe weather; in fact, they beat any hens we ever had.

There is no breed today that has a better or brighter future than the Runner, combining as it does perfect utility and exhibition qualities. We predict that it will not be long before the greatest utility farms will be stocked largely with Runners, for as an egg-producer, quick grower, and early maturity, they have no superiors, and few if any equals. And owing to their classy, upright carriage and beautiful plumage they catch the eye of the poultry fancier.

### Have Care in Mating.

As the breeding season is here, a few words of caution and advice as to the selection and care of breeding stock may not be out of place. If you make a mistake in your present matings, it may result in heavy loss. In one season you can destroy all the beauty of your flock, all their sym-



### Parlor Lamp and Two Vases FREE

I HAVE SELECTED the prettiest Parlor Lamp and two Vases I could find to give to my friends. The above picture shows the beautiful Lamp and Vases, and gives a faint idea of the beautiful rich floral design and the size of each piece. As soon as you send in the coupon below I will mail you a large picture of the entire set, showing each article in all the pretty colors of red, white, green and blue, showing just exactly how the set will look when you take it out of the box in your own home.

The decorations on the big parlor lamp and the two vases are guaranteed hand painted. The lamp stands 18 inches, and will light up the darkest corners of any size room. The vases are 7 inches high. The combination of blue, green, white and red, makes the most popular design yet produced in parlor lamp and vases. Fashionable, stylish, artistic and serviceable. The lamp and the two vases delight the most fastidious housekeeper. When you get this lamp on your table you will have something to be proud of indeed. And we don't want you to pay us a cent of your money for them. What we ask you to do is so easy you will never miss the spare time it will take, and the pleasure the parlor lamp and the two vases give will be with you for years.

In addition to the lovely parlor lamp and the two vases I will also give 41 extra gifts. These 41 extra gifts are also free. I pack them in the crate with your parlor lamp and the two vases.

Fill out the coupon below and I will send you a big sample set of beautiful large Art and Religious pictures, printed in many gorgeous colors. These magnificent pictures are ready for framing and your friends will be wild to get a set like yours. When you have received them show the pictures to your friends and tell them about a special big 25-cent offer I will authorize you to make them. When you have interested only a few of your friends in my big offer the big beautiful parlor lamp and the two vases will be yours. Put your name on the coupon and send it at once. It costs you nothing to sign the coupon—I take all the risk.

### SEND NO MONEY

Century Mercantile Co., St. Louis, Mo.

Please send me free and postpaid the big sample set of beautiful pictures, together with large illustration in colors of the Parlor Lamp and Vases, and tell me about the 41 extra gifts.

Name .....

Address .....

INDIGEST

When the food is hard, the birds will drink water of their mouths heads down the ground. When they are caught and held, their crops get full and the food is stopped.

When all the birds are full, they will drink water of their mouths heads down the ground. When they are caught and held, their crops get full and the food is stopped.

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When all the birds are full, they will drink water of

metry and markings and all their inherited egg-laying characteristics. By the proper attention and thought to your matings this season you can make considerable progress toward perfecting your strain, and fixing more firmly those qualities of beauty and productiveness you are striving for. One who is careless about their matings and who does not carefully study the good and bad points of their birds from which they are to breed can never hope for success with pure-bred poultry. Miscellaneous, careless and promiscuous matings and methods in breeding encourage just such methods in all other work connected with the care and management of poultry.

Not only should you give thought to their breeding qualities, but also to their egg records. It is best to use birds as near your ideal as it is possible to get them. I would not breed from males and females which were extremely different in color, shape or size, but endeavor to use birds which harmonize and equalize their various characteristics. I would rather breed from a reasonably "good all-round" bird than to breed from one which possessed extreme excellence in one character and which was lacking in many others.

#### Begin With Good Stock.

If starting a flock, buy from a reliable breeder, who can save you time and give you the benefit of their years of careful selection, labor and study in perfecting their birds. Also you can trust them to give you a proper mating. Each year cull your birds closely, keeping only the very best, then buy the best to mate with them; in this way, by careful watching of details, you can build up a flock of a fine heavy egg-producing, quick developing, prize-winning strain. By all means use males at the head of your breeding pens which are from heavy egg-laying ducks. Then when you gather each morning as many eggs as you have ducks, you are absolutely sure you have no "lunkheads," aren't you? I call a "lunkhead" an old hen that gobbles up all the feed in sight, is broody ten months of the year, but never lays an egg. You don't find them in the duck pen.

#### Require Little Room.

Runners, who have as much as a town or city lot, for they stand confinement so well, do not require water, only for drinking purposes, and no expensive houses or high fences are needed. Ducks stay where they are "put" and rightly "fed and bred" they produce eggs, eggs, eggs!

And the poultry business of today might be summed up in an egg shell. In other words, prolific egg-production spells success for the Indian Runner duck. The reason may be readily seen, for the income from poultry may be divided into three classes, eggs, fancy, and market. And the Runner meets the requirements of all three classes. They begin to lay when very young, and nearly every duck will lay an egg nearly every day the year around, excepting during the moulting, with proper food and care. Even in mid-winter, when the weather is severe and the ground covered with snow and ice, our ducks properly cared for keep right on laying every day. And the fowl that lays is the one that pays.—Marian Holt, Missouri.

#### INDIGESTION IN POULTRY.

When the food does not digest properly, the birds become so thirsty that they will drink water until it runs out of their mouths when they put their heads down to peck corn from the ground. When they are observed to be in this condition, they should be caught and held head downward and their crops gently squeezed with one hand when the liquid will come away. When all the liquid is removed, give them a little salad oil, as there is always an amount of inflammation in cases of stoppage; the oil relieves it very much, more particularly in the gizzard.—H. Mortimer, Illinois.

#### TO INCREASE HONEY FLOW AVOID "SPRING DWINDEL."

What bee-men know as "spring dwindle" each spring causes large shrinkages in the honey crop. While most of these losses are borne by those more or less unskilled in bee

keeping, still many cases of depleted colonies are being reported among the apiarists of professionals.

Experienced beekeepers explain the difficulty in this manner: Bees are often removed from the cellar and placed upon their summer stands early in April without providing ample protection for the hives. The varying temperature at this season is unfavorable to the colonies. By April brood-rearing has already been started and without protection, outdoor conditions are unfavorable for

the proper development of the brood. It is estimated that fully 5 per cent of Wisconsin colonies died in the spring of 1913 because of improper care at this time.

I. V. France, of the College of Agriculture, University of Wisconsin, who is an experienced apiarist, offers this suggestion to beekeepers:

"Wrap two or three thicknesses of heavy paper about the hives or else set them in false cases. If paper is used see that it is tied on securely and that all joints are covered.

"A shortage of honey in the combs hastens the dwindling process. Be sure to see that the bees have enough to last."

In turkey raising the hen is very liable to steal her nest away; a close watch must be kept for predatory animals.

Any person wishing to go into poultry can do no better than buy a few brooding hens and several settings of eggs from good stock and he will then grow up with the business.

## Farmers' Classified Department

### 70,000 PAID CIRCULATION.

### RATE ONLY TWO CENTS A WORD

Colman's Rural World now has a family of over 70,000 paid in advance subscribers every week. This means that at least 350,000 farm folks are readers of these columns. Figure the cost of sending each of these readers a personal letter each week and then compare that cost with the low rate at which you can reach them ALL through the Classified Columns below. Count up the words in your advertisement, including initials and numbers which count as words, and multiply by two and you will quickly appreciate how low the cost is to reach these 70,000 buyers every week. No advertisement less than 10 cents accepted—and no fakes under any circumstances. Cash must accompany all orders.

#### ADDRESS,

**COLMAN'S RURAL WORLD,** Advertising Department, 718 Lucas Ave., ST. LOUIS, MO.

#### POULTRY.

##### Anconas.

**ANCONAS EXCLUSIVELY**—Eggs from choice matings, \$1.00 for 15; \$6.00 for 100. J. M. Wilson, Jonesburg, Mo.

##### Barred Rocks.

**BARRED ROCKS**—Eggs, two dollars 15. Clarence Wleting, Marlin, Tex.

**MY UTILITY** Barred Rocks are second to none. Eggs for hatching by setting or hundred. Mrs. Karl Kain, Baxter Springs, Kans.

**FANCY** Barred Rock eggs, \$1.50 and \$2.50 for 15. E. B. Thompson Ringlet strain exclusively. Fifteen years' experience breeding Barred Rocks. Prompt service. Satisfaction guaranteed. J. H. Hart, Thomasville, Ills.

**BARRED PLYMOUTH ROCKS**, Thompson Ringlet strain. Pen eggs, either cockerel or pullet mating, \$2.00 for 15. Utilities, \$5.00 for 100, \$3.00 for 50, \$1.00 for 15. Orders booked in advance. Circulars free. Many satisfied customers in 37 states. A. F. Slesker, Defiance, Mo.

##### Langshans.

**BLACK LANGSHAN EGGS** for hatching, \$1.50 per 15. Mrs. Pauline A. Breckmiller, Carlinville, Ill.

##### Leghorns.

**SINGLE COMB** Buff Leghorn eggs, 15; \$1; 2 settings, \$1.50; 100, \$4.50. Asa Breckmiller, Union, Mo.

**S. C. BROWN LEGHORN** eggs, three dollars for one hundred. Mrs. F. P. Browning, Appleton City, Mo.

**SINGLE COMB** Brown Leghorn eggs, \$3.00 per 100. Great laying strain. Fern McElroy, Palmer, Ill.

**SINGLE COMB** Brown Leghorn eggs, farm raised, \$1.00 per 15; \$4.00 per 100. Mrs. John E. Rudloff, Ashley, Mo.

##### Partridge Rocks.

**PARTRIDGE ROCKS**, eggs one-fifty setting. C. A. Dewey, Shelbina, Mo.

##### Rhode Island Reds.

**ROSE COMB** Rhode Island White eggs for hatching from first prize winners in big shows. Write for mating list. Mrs. J. M. Post, Colony, Kansas.

**R. C. REDS**, eggs for hatching, from range flock. Headed by males, scoring 91% to 93. Orders promptly filled. Mrs. John S. Pinkerton, R. 6, Aledo, Ill.

**ROSE AND SINGLE COMB** Rhode Island Reds. Big boned, dark, velvety red. Trained and bred to lay. Sell cockerels cheap from the finest strain and best blood lines. Eggs in season at a low price. Ava Poultry Yards, Ava, Mo.

**S. C. R. I. RED** eggs for sale—Hens direct from Parker mated to cockerels from best laying strain in United States. Eggs from Pen No. 1, \$1.50; Pen No. 2, \$1.00. Am breeding for eggs, as well as color. Mrs. Ben F. Gill, Jr., Aliensville, Ky.

##### White Rocks.

**WHITE ROCKS**, eggs for hatching, \$1.00 per 15, or \$5.00 per 100. J. E. Aden, Sterling, Neb.

**WHITE ROCK COCKERELS**, \$1 and \$2. Satisfaction guaranteed. Nora Lamastier, Hallowell, Kans.

**QUALITY SILVER WYANDOTTES**. Eggs cheap. Guaranteed. Earl Bunnell, Postoria, Iowa.

**QUALITY WHITE WYANDOTTES**. The Blue Ribbon kind. The kind that pay, because they lay. Stock and eggs for sale. Square Deal Poultry Farm, Easter, Nebr. G. W. Morris, Prop.

#### POULTRY.

##### Hamburgs.

**NOW BOOKING ORDERS** for eggs for hatching from my pens of Silver Spangled Hamburgs; fancy, \$3—\$5 per 15; utility, \$1.75, postpaid, in United States. O. L. Parker, Wayne, Nebr.

##### Several Varieties.

**SILVER LACED WYANDOTTE** hen eggs, \$1.50; 30, \$2.50; 100, \$6.00; 12 Runners, Muscovy, Pekin and Indian. Runner duck eggs, \$1.50. Fred Kucera, Clarkson, Nebr.

**TURKEY EGGS**, Mammoth Bronze, Bourbon Reds, Narragansett and White Holland, \$3.50 per 12. Yours for an honest deal. Walter Brox, Powhatan Point, Ohio.

**EGGS!** EGGS! From thoroughbred turkeys, geese Muscovy's, Ronen, Pekin and Runner ducks; pearl and white guineas; white buff and barred Plymouth Rocks, Houdans, Wyandottes, Hamburgs, Leghorns, Orpingtons, Cochins, Langshans, white and silver laced Wyandottes, Rhode Island Reds. Hen eggs, 15 for \$1.00. Also, rabbits, hares and fancy pigeons. Write for free circular. D. L. Bruen, Platine Center, Neb.

##### BABY CHICKS.

**BABY CHICKS**—(Separate farms) purebred Rose and Single Comb White Leghorns. Barred Rocks, Reds, 15 cents. Express paid. Live delivery guaranteed. May delivery, 12½ cents. Alfred Young, Wakefield, Kans.

##### SEED AND NURSERY STOCK.

**SWEET CLOVER**, white and yellow. Mrs. J. T. Mardis, Palmetto, Ky.

**ALFALFA SEED DIRECT**. Sample and growers price on application. J. L. Maxson, Buffalo Gap, S. D.

**FROST PROOF** cabbage plants, leading varieties, 500, 75¢; 1,000, \$1.00. D. B. Keazley, Peterman, Ala.

**SPRING GROWN** cabbage plants, frost proof, standard varieties ready now, 1,000, \$1; 2,000, \$1.50. Bowen & Son, Waldo, Fla.

**WATERMELONS**—Halbert Honey and Rubber Rind, unwashed; guaranteed pure; \$1 pound; washed, unguaranteed, 75¢. Halbert, Originator, Coleman, Texas.

**SUDAN GRASS**, all about it from an Iowa farmer in Texas and ten pounds pure seed grown, \$3.75 prepaid. Reference, Citizens National Bank. C. E. White, Main View, Texas.

**BOW CREEK FARM SEEDS**, since 1872 special on Sudan grass, feterita, alfalfa, corn, kafir, cane; officially inspected; best grades. Can save you cash. Free samples. DeShon, Logan, Ia., Rt. 4.

**WE STILL HAVE** a small amount of choice Sudan grass seed. We are closing out at 25 cents a pound. Ten pounds delivered for \$2. Order quick before all are gone. Wise Bros., Curlew, Tex.

**CABBAGE PLANTS**, ready now, Jersey and Charleston Wakefield, Early Flat Dutch, and Early Summer, delivered in good condition anywhere in the Middle West, for \$1.50 per 1,000. T. K. Godfrey, Waldo, Fla.

**MAKE A FORTUNE** by setting the St. Regis red raspberry, bears all summer; 25 plants, prepaid for \$1; \$3.50 per 100. Grease and Superb fall bearing strawberries, \$2.75 per 100. The Grangers Nurseries, Seabrook, N. H.

**CABBAGE PLANTS**. Weather conditions have been ideal, and I am justified in saying you can't purchase any better; 50 millions ready from November 1st to May 1st. Price: \$500, 75 cents, \$1.00 per 1,000, \$5.00 and over 45 cents per 1,000. Prompt shipment and satisfaction guaranteed. Alfred Jouannet, Mt. Pleasant, S. C.

##### LIVE STOCK.

**POLAND-CHINA PIGS** from Missouri's best strains, the big kind. Buy at weaning time and save expense. We shall wean ours about April 15. Satisfaction guaranteed. Hill Top Stock Farm, Archie, Mo.

#### FAIR WANTED.

**WANTED** to hear from owner of farm or unimproved land for sale. O. O. Mattson, 81 Andrus Building, Minneapolis, Minnesota.

#### FARMS AND LANDS.

**DELAWARE FARMS**, fruit, livestock, all. Best land near best markets. Address, State Board of Agriculture, Dover, Delaware.

**MONTANA LANDS**—For homesteads relinquished and deeded lands in the new county of Phillips, either irrigated or bench lands. Deal direct with owners. Box No. 2, Wagner, Mont.

**PRODUCTIVE LANDS**—Crop payment or easy terms; along the Northern Pacific Ry., Minnesota, North Dakota, Montana, Idaho, Washington and Oregon. Free literature. Say what state interests you. L. J. Bricker, #4 Northern Pac. Ry., St. Paul, Minn.

**GEORGIA FARM LANDS**. Empire state of the South. Finest climate on earth. Buy now! 556 acres best grade land; 740 acres in cultivation; 160 acres in pasture; balance wood land, white oak, hickory, 500,000 feet pine timber. Power site location. Spring and running stream. Six dwellings; barns. Best Georgia soil; fine fruit land, trucking, wheat, oats, corn, cotton, cattle and hog raising. A bargain at \$72 per acre. H. J. Peagler, Butler, Ga.

**ALFALFA LAND CHEAP**—Have eighty acres good valley land, will produce five tons alfalfa, eighty bushels oats, sixty bushels wheat or barley, two hundred bushels potatoes, five hundred bushels onions from the seed, thirty bushels sugar beets to acre. Water abundant; water-right paid in full. One-fourth mile river front. Plenty of out-range. Six acres timber. Climate ideal. Price thirty dollars per acre; terms, half cash. M. S. Durrill, Riverton, Wyoming.

#### DOGS.

**PEDIGREE SCOTCH COLLIES**, grown and pups. R. J. Red cockerels, \$1.50 each. Mike Abts, Bellwood, Neb.

#### GOATS.

**MILK GOATS**—Swiss, American Toggenburg, Saanen, heavy milkers and does not kid; breeding stock; pea fowl, swan, marten, mink, otter. (Prospectus 10c.) Golden West Farm, Dept. 75, St. Paul, Ark.

#### HELP WANTED.

**MEN AND WOMEN OVER 18**—Wanted, \$65.00 to \$150 month. U. S. Government life jobs. Common education. Write immediately for list of positions open to you. Franklin Institute, Dept. 8167, Rochester, N. Y.

#### PATENTS.

**PATENTS SECURED** or fee returned. Send sketch for free search and report. Latest and most complete patent book ever published for free distribution. George P. Kimball, 220 Barrister Building, Washington, D. C.

#### BUSINESS OPPORTUNITY.

**FREE FOR SIX MONTHS**—My special offer to introduce my magazine "Investing for Profit." It is worth \$10 a copy to anyone who has been getting poorer while the rich, richer. It demonstrates the real earning power of money, and shows how anyone, no matter how poor, can acquire riches. Investing for Profit is the only progressive financial journal published. It shows how \$100 grows to \$2,200. Write now and I'll send it six months free. H. L. Barber, 477-28 W. Jackson Blvd., Chicago.

#### MISCELLANEOUS.

**25 HIGH-GRADE** assorted postcards, different sorts, 10c postpaid. United Card Co., Floydada, Tex.

**FOR SALE**—German Canaries, \$2.50 for singers, \$1.00 for females, \$3.00 a pair. Miss Fred Wood, La Harpe, Ia.

**REBUILT TYPEWRITERS** for home use, \$15 to \$55. Sent to you on approval. Office Equipment Co., Nashville, Tenn.

# SHEEP & SWINE FOR MOST MONEY

QUARANTINE MODIFIED IN SEVEN STATES.

An order effective today, (April 5) is the first of the various quarantine orders for foot-and-mouth disease which adds no new territory to the quarantined area and consists entirely of modifications because of improved conditions. In connection with the fact that for a brief time on April 1 there were no animals in the United States known to have the disease this is regarded as significant evidence of satisfactory progress in the campaign. It is also pointed out that Michigan, the state in which the epidemic started and which has suffered a loss of 7,799 animals, is believed to be entirely free from the disease. All territory in the state is now included in the restricted area, for which the regulations are the least stringent of any of the four classes in the quarantined area. No territory east of the Mississippi and north of the Tennessee-Virginia line is entirely free from quarantined regulations.

The new order known as amendment No. 5 to B. A. I. Order 236, affects the quarantine regulations in the following particulars.

**Illinois:** All of the counties of Henry and Whiteside are now in the exposed area.

**Indiana:** Allen and Johnson counties, together with territory in St. Joseph county within five miles of infected premises, are modified area. Morgan county is made restricted area.

**Iowa:** The counties of Cedar, Iowa, and Johnson are restricted area. Jones county is a modified area with the exception of Washington township, which is exposed.

**Kentucky:** Territory in Hardin, Jessamine, and Scott counties not within three miles of infected premises is made restricted area and territory in Woodford county within three miles of infected premises a modified area and not within three miles a restricted area.

**Michigan:** Berrien, Saginaw, and Tuscola counties are added to the restricted area.

**Ohio:** The following counties are added to the restricted area: Belmont, Champaign, Darke, Fayette, Franklin, Fulton, Hardin, Putnam, Shelby and Wyandot.

**Pennsylvania:** Indiana county is made an exposed area and Beaver county restricted area.

**West Virginia:** Ohio county is made exposed area; Brooke, Hancock and Marshall counties restricted area.

## THE BREEDING EWE JUST BEFORE LAMBING.

Four to six weeks prior to the time of lambing is an important time in the care and feeding of the pregnant ewe and to the lamb which she is to produce. If properly fed and cared for, the ewe will be healthy and strong and will produce a strong, vigorous lamb. Up to this time, she may not have needed much grain though a little may have been a good practice. But now she will need plenty muscle-building food. Nothing is superior for this purpose than clean, bright oats or oats and bran in equal parts. The daily allowance of grain need not exceed one-half grain. The above grain ration in combination with bright clover or alfalfa, form almost an ideal ration for the breeding ewe. Roots or good silage may make up a small amount (2 to 3 pounds) of the ration before lambing. After lambing the amount can be slightly increased to help increase the milk flow. The roughage may also be supplemented with bright corn stover or clean oat straw. But do not spare the supply of clover or alfalfa hay.

As important as the feed is exercise. Do not make the mistake of keeping the ewe shut up in a small lot and

housing her in a tight barn. Turn her out on the pasture for several hours each day, unless quite stormy, and then she will take sufficient and needed exercise. Lack of exercise is quite detrimental to the health of both the ewe and the unborn lamb. Shelter the ewe in dry quarters which are provided with plenty of ventilation, but avoid drafts. An open shed to the east and south, but well closed on the north and west, is much preferable to housing in a poorly ventilated barn. Also keep in mind that the ewe needs a good supply of pure, fresh water and salt regularly.

Finally, do not abuse or handle the ewe roughly. No animal is more susceptible to kind treatment than the sheep, while fright or ill-treatment is sure to be harmful to the pregnant ewe.

In brief, give the ewe plenty of muscle-building and milk-producing foods; see that she takes plenty of exercise; water and salt regularly; and a dry bed and she will produce a strong, vigorous lamb.—C. W. Hickman, Idaho Experiment Station.

From 18 to 20 inches should be given for each ewe at the feeding racks and troughs.

Don't be afraid of getting too much bone and length in pigs when breeding for the farmer. He knows from experi-

ence where he made the money. He pedigree unless size and quality doesn't care so much for the show record and not so much for high sounding easy feeding quality.

## The Next Time You See THIS in Your Hog Lot Send for THIS

SEND  
NO MONEY

When your hogs rub against fence posts, buildings, trees, etc., look out for lice. It's a pretty good sign these blood-sucking insects are at work in your herd. If neglected they will multiply by the thousands and infect the whole herd—keep your animals thin—stunt their growth—lower their quality and invite cholera and other contagious diseases on to your farm. Dips are helpful but expensive—often dangerous and always troublesome. Why not let your hogs rid themselves of lice, mange and other skin diseases in the natural way. Let them rub against a *Rowe New Idea Rubbing Post* 30 days at my risk. I'll furnish the Posts and the Oil and pay the Freight. The trial won't cost you a cent. You simply watch results and pay if pleased.

### Rowe's New Idea Rubbing Posts

are simpler, safer, more durable and more economical than any other kind of oil, crude or medicated. Have no valves, nothing to get out of order, work in all kinds of weather the year round. Oil is applied by valve and cylinder machines. Rain can't wash out oil. No oil. Every drop is applied as needed right on the itch when the hog rubs. Of all sizes and ages can rub on these posts and keep vermin-free and healthy. Three rubbing bars to each Post. One Post accommodates 30 hogs.

Try Them 30 Days FREE—Pay If Please

Just write and tell me how many Posts you want to try 30 days at my risk. I'll furnish the Machines, Oil, everything and even pay the freight to prove my claims. Send no money. Order direct from this advertisement or prefer write for big illustrated folder today.

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## This Wonderful Machine Has Actually Revolutionized Butter Making on the Farm

Capacity  
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### Saves Half the Work—Makes More and Better Butter

Instead of the old, tiresome way of churning an hour or more to make the butter come, you can take the same amount of cream you are now churning, put it in a Fayway and get more and better butter in half the time it is possible for you to get in any other way under the most favorable conditions. It does away entirely with the muss and drudgery because the Fayway is the easiest running buttermaker ever invented.

Now these are facts—not extravagant claims. Thousands of farmers are getting these results with the Fayway right along. Read what John Andrews, owner and editor of Kimball's Dairy Farmer, has to say about this great buttermaking machine; also what a few owners write us about the wonderful success they are having with it.

Will Last A

Lifetime—

Nothing to

Get Out of

Order

Absolutely Sanitary—  
Easy to  
Keep Sweet  
and Clean

**The Fayway**  
Butter Separator

Not a churn, but a scientific, practical machine that works on an entirely different principle from any churn ever made. All churns beat or whip the butter fat out of the cream. This breaks the fat globules and makes greasy, salty butter that spoils quickly. The "Fayway" has a center hollow shaft through which a strong current of air is forced, blowing all the butter fat upward where it quickly forms into golden, pea shaped granules, ready to be worked. Absolutely free from impurities of any kind, the butter is washed and worked in half the time the churned butter requires. And, oh, such butter! Firm and wax in texture, of superior grain and beautiful golden color, you'll say it's the finest butter you ever saw or tasted! No wonder that, packed in Fayway 1 lb. cartons, it brings 60 to 10¢ more per pound than ordinary dairy butter. It's worth it!

### 30 Days Free Trial

If you were absolutely convinced of the truth of everything we have here told you about the Fayway, you'd buy one in a minute. But it sounds almost too good to be true, so perhaps you are not to blame if you are a little bit skeptical. Why not, then, let us convince you by sending you a Fayway for a 30 days free trial. You'll be under no obligations to keep or pay for the machine if you are not convinced that every word we say is true or, if for any reason at all you don't wish to keep it. The 30 days trial is ABSOLUTELY FREE.

### \$1,000 Bank Guarantee Bond

We have deposited \$1,000 with a Cincinnati Bank as a guarantee that we will faithfully perform our every promise to anyone sending for the Fayway for a free trial. You can't possibly lose a penny by taking advantage of this liberal free trial offer because you risk absolutely nothing.

Don't overlook the fact that we also furnish every purchaser of a Fayway with Cartons, Parchment Wrapping Paper and a 1-lb. Butter Mold—all free. With this Fayway buttermaking outfit you can have complete creamery right on your farm—a creamery that the women folks can tend to because the little work involved is so easy and pleasant. Yes, and put up in these attractive, sanitary, dust and moisture proof cartons your Fayway butter can hold its own with the best creamery butter in the land either in the store or with private trade—and command the same fancy prices. Any number of Fayway owners tell us they actually get

5¢ to 10¢ More Per Pound than they were ever able to get for their best churned butter. The extra profits from the same amount of cream you are now churning will quickly pay for a Fayway many times.

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Shows how to build up a big, profitable butter business. You need this course, no matter how much you know about buttermaking.

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**FREE**  
CARTONS,

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CARTON made from heavy, solid paper—no paste or staples used in a butter carton. Quicker and easier to fill than any other—no long open seam to admit air. Holds shape till destroyed. Keeps butter fresh, clean and sweet.

PARCHMENT WRAPPING PAPER printed on each sheet—a big advertisement for your butter. These wrappers act as protection and keep all impurities and odors away from the butter.

BUTTER MOLD. Made of hard wood—makes butter into perfect shapes. Molded butter into perfect shapes. Molded butter into perfect shapes.

All of above furnished FREE to every purchaser of a Fayway Butter Separator.

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Send facts about 30 Days Free Trial Offer, and Free Course in Buttermaking, also proof and guarantee.

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